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Environmental Site Assessment Phase I

**Forsyth County Tax Block 0203, Lots 102,104 & 206C
Winston-Salem, NC
GeoSci Job 01.217**

Prepared by
Geoscience and Technology, P.A.
For
R.J. Reynolds Tobacco Company (as property owner)
and
**The City of Winston-Salem Department
of Enterprise Community Development**

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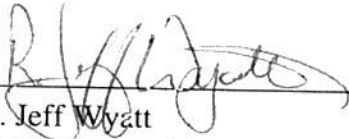
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CERTIFICATION

I hereby certify, this 12th day of October 2001, that this report was prepared by me or under my direct supervision.



R. Jeff Wyatt
Field Services Manager



Steve E. Mason, P.G.
Principal Hydrogeologist



EXECUTIVE SUMMARY

Geoscience and Technology, P.A. (GeoSci) has completed a Phase I Environmental Site Assessment for the properties designated as Forsyth County Tax Block 0203, Lots 102, 104 & 206C, listed as 0 North Chestnut Street for lot 102, 0 North Liberty Street for lot 104, and 747 North Chestnut Street for lot 206C, Winston-Salem, NC. Lots 104 and 206C have Chestnut Street addresses. This appears to be a mistake, as none of the lots connect or abut Chestnut Street in any way, past or present. These properties, currently owned by R. J. Reynolds Tobacco Company, lie southwest of the corner of the intersection of N. Liberty and Patterson Avenue, just north of Winston-Salem's Central Business District. No surveys were performed for asbestos-containing materials, lead-based paint, or radon gas.

The purpose of the assessment was to evaluate potential environmental liability posed by present or past activities on or near the subject properties. The assessment included a review of natural and induced hazards, an examination of current and historical land uses, and reviews of state and federal regulatory databases. During the site walkover, no evidence of past land uses was identified. The lots in question are overgrown and grassy and there are no structures remaining.

Sanborn fire insurance maps indicate that all lots were residential by 1900 and that Lot 102 was a gasoline station by 1949. Business directories indicate lot 102 was a gasoline station by 1940. From 1940 through 1995, lot 102 has also been an auto sales and repair facility, a service station, a body and trim shop, a roofing company and a used car lot. Lots 104 and 206C have been a mix of residential and small businesses (confectionery shops, restaurants and pool halls) from 1900 until as late as 1996.

During the site inspection, the grassed lot contained surface litter (plastic bottles, paper, plastic grocery bags), but no evidence of dumping or current chemical or fuel storage was observed. Three transformers were noted on a power pole near the northern property boundary of lot 104. It is unknown whether these contain PCBs. Telephone conversations with representatives from Duke Power suggested the transformers should not contain PCB's, but a physical inspection would be necessary to assure this. No evidence of surface staining was noted beneath the transformers, which appear to be of recent design and manufacture.

The North Carolina Department of Environment and Natural Resources (NC DENR) Pollution Incident List indicated a number of facilities within 0.5 miles of the subject sites on which soil and/or groundwater impact has occurred. The subject site and three others within 600 feet were reviewed. Lot 102 apparently contained underground storage tanks (USTs), shown in the 1949 Sanborns, but further information could not be found. There was no evidence of UST's on lots 104 and 206C. State files on UST's were reviewed to determine the status of the UST's on lot 102, but additional information was absent. Reviewed files for sites to the southwest and northeast indicated petroleum fuels and chlorinated solvent impact (without an identified solvent source). The distances from these sites make both a de minimis risk with regard to petroleum fuels; however, the occurrence of the solvents without a known source represents a recognized environmental condition. One site about 500 feet west of the subject property had evidence of free product without clear definition about groundwater flow direction. This site represents a recognized environmental condition, but not a material threat to the subject site based on distance and the fact that another party has undertaken assessment.

No National Priority List (NPL) sites were identified within one mile. Three CERCLIS or NC Inactive Hazardous Waste Sites were noted within 1.0 miles, one of which is a NC Sites Priority List site. All three sites are no further action sites under CERCLIS, and none appears to represent a material threat. No Resource Conservation and Recovery Act (RCRA) Transport, Storage, or Disposal (TSD) or RCRA permitted or interim status sites were identified within one mile. Several RCRA Notifiers (hazardous waste generators) lie within 0.25 miles, the nearest of which lies across N. Liberty Street from the subject sites. This site is a conditionally exempt generator based on waste quantity, and no evidence of permit violations was noted. No known permitted solid waste operation was identified within 0.50 miles.

1.0 INTRODUCTION

Geoscience and Technology, P.A. (GeoSci) has completed a Phase I Environmental Site Assessment for the properties designated near the corner of N. Liberty Street and Patterson Avenue, Winston-Salem, NC. (Figure 1).

1.1 Purpose

The purpose of this Environmental Site Assessment (ESA) is to evaluate the potential environmental liability associated with the subject properties. The environmental assessment serves to identify conditions or activities at the site and on nearby properties that present existing or potential environmental hazards. The information contained in this report should allow interested parties to determine whether additional investigation or remediation of site conditions is required. The contents of this report should not be construed as a recommendation by GeoSci for or against purchase, sale, financing, or development of the properties.

1.2 Scope of Investigation

The ASTM Standard Practice for Environmental Site Assessments (E1527-00) was used to set minimum criteria for data collected during the investigation. The investigation included a site reconnaissance for indications of hazardous materials, chemical and fuel storage, electrical transformers, distressed flora and fauna, ground surface staining, and suspicious odors. It should be noted, however, that this assessment is being performed through The City of Winston-Salem Department of Enterprise Community Development, under a USEPA Brownfields Pilot Study Grant. The Brownfields program excludes structures and potential environmental concerns arising from them. Therefore, no assessment was performed with regard to radon gas, asbestos-containing-materials (ACMs) or lead-based paint.

The Phase I ESA included research into current and historical land use at the subject site and surrounding area. The research included interviews with site owners, examination of historical aerial photographs and review of City Business directories to identify possible adverse land uses. To determine locations where petroleum fuel products, hazardous substances, or solid waste may have been used, handled or stored, reviews were conducted of the federal NPL, RCRA-TSD, CERCLIS, ERNS, TRIS, Federal Sites, North Carolina Sites Priority (SPL), Inactive Hazardous Sites, and Hazardous Waste Generators lists. Underground storage tank (UST) registration lists and the Groundwater Pollution Incident lists maintained by the North Carolina Department of Environment and Natural Resources (NC DENR) were also reviewed.

2.0 SITE DESCRIPTION

2.1 Site Location and Designation

The subject properties are identified as Forsyth County Tax Block 0203, Lots 102, 104 and 206C, located near the corner of the Patterson Avenue and N. Liberty Street intersection. These properties, owned by R.J. Reynolds Tobacco Company, are currently vacant, and contain no above grade structures. Figure 2 is a site identification map showing the location of the subject sites. A survey was not provided by RJR for this report. According to the Forsyth County tax office, lot 102 contains 0.37 acres, lot 104 contains 0.19 acres and lot 206C contains 0.06 acres. A copy of the Forsyth County tax records for these properties, downloaded from the Forsyth County Geo-Data Explorer web site, is included in Appendix A.

2.2 Environmental Setting

2.2.1 Regional and Local Geology

The Winston-Salem area of North Carolina lies in the center of the Piedmont physiographic province of the Southern Appalachian Highlands. The Piedmont is comprised of several northeast trending belts of igneous and metamorphic rock, thought to have been accreted to the eastern edge of North America during the closing of Paleozoic ocean basins. Winston-Salem lies within the Milton Belt, a terrain dominated by felsic intrusive and metamorphic rocks of early Paleozoic age. According to the geologic map of North Carolina, rocks in the immediate area of the subject site are typically biotite gneiss and schist (Brown et al, 1985). No major structural geologic features are present within the immediate vicinity of the subject site. No outcrops were noted on the subject site.

2.2.2 Topography

The Piedmont is considered by geomorphologists to be an ancient erosional surface developed in the crystalline and metamorphic rock of the region (Thornbury, 1965). Piedmont topography is characterized by gently rolling uplands, commonly forming northeast trending ridges in the western portion of the region. Drainage patterns are typically dendritic and rectilinear, with upland divides everywhere within one mile and often within one-half mile from a stream valley (LeGrand, 1967). Local upland-to-valley relief of a few hundred feet is common.

Winston-Salem/Forsyth County topographic map #630858 indicates elevations on the site range between about 925 and 940 feet above sea level. Drainage is by sheet flow to the south-southeast. Storm drains exist along MLK and Chestnut Street. Martin Luther King Jr. Street (MLK) was recently lengthened and widened. This activity, along with acquiring right-of-ways, altered these lots and others on the 800 block of N. Liberty Street.

2.2.3 Regional Hydrogeology

Groundwater in the Piedmont occurs in two hydraulically connected zones, the regolith and the underlying fractured bedrock. Regolith is an unconsolidated or semi-consolidated mixture of weathered rock ranging in size from microscopic clay particles to boulders. It includes the soil zone, saprolite (a clay-rich weathering product often found beneath Piedmont soils), and alluvium (sediments deposited at the surface by water). The thickness of the unsaturated portion of the regolith, i.e., the portion of the regolith above the water table, typically ranges from 5 to 50 feet. Depth to the water table is largely a function of topography: the median water table depth in Piedmont draws and valleys is 20 feet, in slopes and flats 25 feet, and in hills and ridges 32 feet (Harned, 1989). Depth to the water table at a given location varies seasonally, generally declining during the summer when atmospheric conditions favor evaporation and plants transpire large amounts of water, and rising during the winter and spring when precipitation dominates.

Between the regolith zone and deeper, unweathered bedrock lies a transition zone, where intermediate stages of weathering result in a permeable mix of saprolite and boulders. The thickness of the transition zone has been measured in the central Piedmont at 15 feet, but may vary greatly (Harned, 1989). Beneath the transition zone lies crystalline bedrock. Often, the bedrock is fractured, typically as a result of the compressive stresses that deformed the region or from stress-relief related to the removal of overburden. The fractures serve to connect the regolith aquifer, where most of the subsurface storage capacity lies, to the lower-porosity bedrock.

Most of the natural groundwater flow in the Piedmont is confined to the regolith, the transition zone, and the upper 30 feet of bedrock, where the fracture concentration is highest (Harned, 1989). The annual contribution of groundwater to total stream flow is estimated to average 44%. Therefore, pollutant impact to groundwater can have a direct impact on streams that may serve as, or discharge to, water supply sources. Subsurface flow is usually toward stream valleys, with the water table surface typically forming a subdued replica of the land surface. Depth to groundwater and determination of groundwater flow direction is beyond the scope of this investigation.

3.0 NATURAL HAZARDS

3.1 Seismicity

The Piedmont of North Carolina is one of the most seismically quiescent regions in the eastern United States (Figure 3a). Earthquakes are seldom felt in the Piedmont, even though adjacent regions have a long history of frequent low to moderate magnitude events ($M=3-5$). The U. S. Geological Survey has assigned a damage expectancy factor of “minor” to “moderate” for the Piedmont region, based primarily on the occurrence of two destructive earthquakes, the epicenters of which were located several hundred miles away.

The 1886 Charleston, SC earthquake is the largest seismic event ever recorded in the southeastern United States. Shaking from the 1886 Charleston earthquake was felt strongly throughout the Piedmont, with seismic intensity ranging from V to VII and some structural damage reported (Figure 3b). Among the sequence of earthquakes that struck New Madrid, Missouri in 1811-1812 were two of the largest seismic shocks to hit North America in historical times. Shaking from the New Madrid quakes was perceptible as far away as Boston and New Orleans. Damage from this earthquake sequence was minor in the Piedmont, with seismic intensity estimated below VII.

In December 1994, a series of small tremors was felt in Winston-Salem. Although the strongest of the Winston-Salem quakes measured only $M=1.7$, minor structural damage was reported to several private residences. Despite the recent occurrence of small earthquakes in Forsyth and Guilford Counties, seismic events are rare in this region. Given the known seismic history of the Piedmont and surrounding regions, the potential for damage resulting from a large earthquake is considered small. There is no apparent reason to expect that damage at the subject site resulting from regional earthquakes would be greater than similar sites in the region.

3.2 Radon

Radon is a colorless, odorless gas emitted from the natural decay of radioactive elements in the earth's crust. The gas tends to collect in structures that have improperly sealed and poorly ventilated crawl spaces or basements. The occurrence of radon is generally associated with areas underlain by granitic crystalline rocks or phosphatic sands and clays. Figure 4 illustrates the results of a state survey of radon levels measured in over 7,000 North Carolina homes. The average radon concentration measured in Forsyth County homes is below 4.0 picoCuries per liter (pCi/L), the level above which the EPA recommends corrective action. However, radon levels are known to fluctuate greatly in the area, both as a function of radon generation in the subsurface and with the nature of gas pathways to individual buildings. For this reason, the USEPA and the North Carolina Division of Radiation Protection recommend testing of all buildings for radon gas. No radon survey was conducted on this property because the site currently contains no buildings.

3.3 Flooding

A July 9, 2001 review of the Federal Emergency Management Association (FEMA) Flood Insurance information provided by the Forsyth County GeoData Explorer web page indicated that the subject site is designated as Zone X, representing an area of minimal flooding potential. Site topography is illustrated on Figure 5. The topographic map does not show the re-configuration of MLK and Chestnut Street, nor does the structure shown on this map exist (see Figure 2).

4.0 HISTORICAL LAND USE

Current ASTM guidelines require one historical source capable of documenting a site's land use history. For this assessment, two sources were used: 1) Sanborn fire insurance maps, and; 2) Business directory listings. Historical aerial photograph review was restricted to the most recent aerial photograph available from the local municipality (1997).

4.1 Ownership History

General Warranty Deed information was obtained from the Forsyth County Register of Deeds office. This information indicates the subject lots were obtained from C.W. Myers Trading Post, Inc. A copy of the deed is included in Appendix B.

4.2 Historical Aerial Photographs

A portion of the March 1997 aerial photograph of the subject sites and surrounding area (Map #630858, original scale 1" = 200') is included on Figure 6. The aerial photo does not show the re-configuration of MLK and Chestnut Street, (see Figure 2); however, the inset to the aerial photograph, downloaded from the Forsyth County Geodata Explorer website, shows the current street configuration.

4.3 Sanborn Fire Insurance Maps

Sanborn fire insurance maps, published between 1885 through at least 1971 (in some areas), identify potential fire hazards and, therefore, potentially adverse land uses. Following is a summary of listings for Sanborn maps available for the subject site and surrounding properties:

1885, 1890, 1895:

No coverage

1900, 1907:

The property at the corner of N. Liberty and Patterson Ave. contains a Livery.

1912, 1917, 1928:

The property on the southeast corner of Liberty and Patterson Ave. contains a dwelling.

1949 Update:

Lot 102 appears to contain a gasoline station. From the map, it appears that the USTs for the gas station are near N. Liberty Street. The adjacent property south is listed as an auto sales business. Property north, across Liberty Street includes a dwelling, a used car sales facility, and an auto painting facility.

1958:

Map is difficult to read, but the subject site's land use appears similar to that noted in 1949.

1969:

The subject site's land use appears similar to that noted in 1949.

4.4 City Business Directories

City business directory listings document land uses by property address through time. For this assessment, business directory listings, on file at the office of Geoscience & Technology, P.A. (GeoSci) were examined at five-year intervals from 1902-03 through 1995 for listings in the 800 block of N. Liberty Street (generally, railroad east to Patterson Avenue). Results are listed below; addresses are listed at left, followed by business names and/or crossing streets (Lot 102 identified in underlined type):

1902 and 1904-05:

895 Edward Penn Livery

1910:

8th intersects

800 Logan A.G. & Co

N&W RR intersects

1915:

802 Logan A.G. & Co furniture

N&W RR intersects

CHESTNUT intersects

DEPOT intersects

PATTERSON starts

1920:

8th intersects

800 Flechter Furniture Co.

805 Hutchins Furniture Co.

N&W RR intersects

CHESTNUT intersects

DEPOT intersects

PATTERSON starts

1925:

So. RR crosses

Chestnut intersects

860 Standard Oil filling station

Patterson intersects

1930:

So RR crosses

860 Camel City Service Station #1

863 Standard Oil Co. filling station #100

Chestnut intersects

Patterson intersects

1935:

8th intersects

800 Home Furniture Co.

803 Shelton Furn Co

860 Payne J. Howard filling station

863 Standard Oil Co. filling station

CHESTNUT intersects

876 L&M Furn Co

PATTERSON intersects

1940:

So. RR crosses

823 Peco Petroleum Co.

860 Woods A. Newton filling station

863 Bowles & Smith service station

CHESTNUT intersects

874 Coe and Hartman sign mfgs

885	<u>Gant Oil Co. No. 3 filling station</u>
893	Cox Service station
896	Pritchett Jack Tire Co. PATTERSON intersects
<u>1945:</u>	
	So. RR crosses
823	Peco Petroleum Co. filling station
860	Hamm Chas filling station
863	Standard Oil Co. filling station CHESTNUT intersects
874	Coe & Hartman Sign mfgs
885	<u>Gant Oil Co. No. 3 filling station</u>
893	Bassett James filling station
896	Shell Service Station PATTERSON intersects
<u>1949-1950:</u>	
	So. RR crosses
815	Peco Petroleum Co. filling station
832	Jarvis Battery & Elec. Co.
840	Brown-Coltrane Mtr Co.
843	Doss James E. auto repair
850	Serv. Distributing Co. filling station CHESTNUT intersects
860	Bill's Amoco filling station
863	Strader's Esso filling station
874	Coe & Hartman Sign mfgs
893	Pendergrast & Overman filling station
896	Shell Service Station PATTERSON intersects
<u>1955:</u>	
	So. RR crosses
815	Peco Petroleum Co. filling station
832	Jarvis Battery & Elec. Co.
843	Lanier Motors
850	Serv. Distributing Co. filling station CHESTNUT intersects
860	Hill & Wall filling station
863	Allan's Esso filling station
874	Coe & Hartman Sign mfgs
885	<u>Southern Oil Stores filling station 3</u>
893	Sinclair Serv filling station 5
896	Musten Roy F auto rep
896	Sailey Auto Elec Svc repairs PATTERSON intersects
<u>1960:</u>	
	So. RR crosses
800	Keith-Lowery Furniture Co.
815	Peco Petroleum Co. filling station
832	Jarvis Battery & Elec. Co.
840	Bob Neill Pontiac
850	Serv. Distributing Co. filling station CHESTNUT intersects
860	Leake Harry Amoco filling station
863	Allan's Esso filling station
874	Coe & Hartman Sign mfgs
875	Hoots Mtr Co. auto repairs PATTERSON intersects

1965:

So. RR crosses

815 Peco Petroleum Co. filling station
832 Jarvis Battery & Elec. Co.
850 Serv. Distributing Co. filling station

CHESTNUT intersects

860 Hamm's Amoco filling station
863 Allan's Esso filling station
874 Coe & Hartman Sign mfgs
875 Hoots Mtr Co. auto repairs
916 Lar-Mel Display Signs
933 Safe Bus Co.
938 White Vehicle Co. auto repairs

PATTERSON intersects

1970:

MAIN intersects

815 Peco Petroleum Co. filling station
832 Jarvis Battery & Elec. Co.
850 Serv. Distributing Co. filling station

CHESTNUT intersects

860 Winston OK Rubber Welders Tire recap
863 Allan's Esso filling station
874 Coe & Hartman Sign mfgs
875 Safe Bus Co.
893 Camel City Cab Co

PATTERSON intersects

1975:

So. RR crosses

800 Keith-Lowery Furn Co
832 Jarvis Battery & Elec. Co.
840 Winston-Salem Auto Painters
850 Serv. Distributing Co. filling station

CHESTNUT intersects

860 Winston OK Rubber Welders Tire recap
863 Allan's Esso filling station
866 City Rat Control (storage)
874 Coe & Hartman Sign mfgs
875 Safe Bus Co.
893 Green's Cab Co

PATTERSON intersects

1980:

So. RR crosses

800 Keith-Lowery Furn Co

MAIN intersects

So. RR crosses

832 Jarvis Battery & Elec. Co.
840 Earl Scheib Auto paint
850 Serv. Distributing Co. filling station

CHESTNUT intersects

860 Rousseau Auto Repair
863 Allan's Esso filling station
866 City Solid Waste & Rodent Cntl (stor.)
875 Pat's Body & Trim
876 Coe & Hartman Sign mfgs

893	Professional Car Cleaners PATTERSON intersects
 <u>1985:</u>	
	N & S RR crosses
800	Keith-Lowery Furn Co. mfgs
832	Jarvis Battery & Elec. Co.
840	Earl Scheib Auto paint
850	Serv. Distributing Co. filling station CHESTNUT intersects
860	Ace Roofing Co. contractors
875	Myers C.W. Trading Post used cars
893	Professional Car Cleaners PATTERSON intersects
 <u>1990:</u>	
	N & S RR crosses
832	Jarvis Battery & Elec. Co.
840	Earl Scheib Auto paint
850	Servco Inc. gas CHESTNUT intersects
860	Showtime car care auto cleaning
866	Winston-Salem Rodent/Solid Waste cntrl
875	Myers C.W. Trading Post auto body
876	J.K.S. Screen Printing/Signs
884	Paul's Body Shop
<u>885</u>	<u>Myers C.W. Trading Post auto body</u>
893	Professional Car Cleaners PATTERSON intersects
 <u>1995:</u>	
	N & S RR crosses
832	Jarvis Battery & Elec. Co.
840	Earl Scheib Auto paint
850	Servco Inc. gas CHESTNUT intersects
860	Showtime car care auto cleaning
876	J.K.S. Screen Printing/Signs
884	Paul's Body Shop
<u>885</u>	<u>Myers C.W. Trading Post auto body</u>
893	J & J Professional Carwash PATTERSON intersects

Lot 102 was occupied by several land uses with the potential to generate waste and/or store/use fuel products, including Gant Oil Company (1940 to 1955), Southern Oil Stores (1955) and C.W. Myers Trading Post Auto Body (1985, 1990, 1995). The subject site also lies near other potentially adverse land uses. These include other filling stations, auto paint facilities, battery/electric companies, and the City of Winston-Salem's rodent control storage facility, which was located at 866 N. Liberty Street. Lots 104 and 206C have been primarily residential, with a few small businesses, none of which should have generated waste or products that could be an environmental hazard.

5.0 SITE INSPECTION

5.1 Current Use and Conditions and Key Site Manager Interview

On September 18, 2001, a visual reconnaissance, or site walkover, of the subject property was performed. Photographs taken during the site walkover are presented as Figures 7a-7g.

The subject sites are small properties, bounded by Liberty Street to the north, MLK to the south, and a vacant lot owned by the City of Winston-Salem to the west. On the eastern boundary, two subject sites abut Tax block 0203 lot 103, owned by heirs of B.B. Greene and Patterson Avenue. No driveway access is currently provided to the site.

The Liberty Street side and the southern boundary of lot 102 are at street grade. The property slopes topographically southwest toward MLK Drive. Lots 104 and 206C abut Patterson Ave. to the east and MLK Jr. Boulevard to the south. Drainage is by sheetwash toward MLK Jr. Boulevard and Patterson Avenue.

The properties are grassed, vacant lots. The property may have been modified during recent construction and re-paving of Chestnut Street and MLK, Jr. Boulevard. During the site walkover, windblown litter was present throughout the property; however, no evidence of illegal dumping or accumulations of solid waste were observed.

Three transformers were noted on a power pole located on Liberty Street. The property boundaries between the subject site and the adjacent property was not marked and GeoSci cannot state with certainty whether this power pole is located on the subject site or on the adjacent property. The transformers appeared to be of modern construction and no leakage or staining of the underlying soil or sidewalk was observed.

On September 21, 2001, GeoSci personnel faxed a questionnaire to Mr. George Lamb, (as Key Site Manager), regarding his knowledge of the site's history and usage. Mr. Lamb indicated he knew very little of the site's past uses, as it had been acquired through a series of transactions.

5.2 Above-Ground Chemical and Fuel Storage

On the day of the site walkover, no fuel or chemical above-ground storage tanks (ASTs) or drums were noted.

5.3 Underground Storage Tanks (USTs)

During the site walkover, no UST-related vents were observed.

5.4 On-Site Solid Waste

On the date of the site walkover, some litter (plastic bottles, paper, plastic grocery bags) was observed. This litter was collecting on the grassed lot, but no evidence of dumping was observed.

5.5 On-Site Hazardous Waste

Historical information indicates that the subject site has been a service station and auto service facility. It is unknown whether these activities resulted in handling or storage of potentially hazardous materials such as cleaning solvents. No drums or other containers were noted on the subject site during the July 11, 2001 site walkover.

5.6 PCBs

Leaking electrical transformers are a primary source of polychlorinated biphenyl (PCB) contamination. On the date of the site walkover, three transformers were identified on a power pole located on Liberty Street. This power pole is located near the boundary between the subject site and the property owned by R. J. Reynolds Tobacco Co., and may not be located on the subject site. Although it is unknown whether the transformers contain PCBs, they appeared to be in good condition and of modern design. No evidence of surface staining was noted beneath the transformer. However, the sidewalk underlying the transformers appeared relatively new.

5.7 Asbestos

No survey of asbestos containing material (ACMs) was conducted at the subject site because it is beyond the scope of this investigation (see Section 1.2). Further, the subject site does not currently contain an above ground structure.

5.8 Lead-Based Paint

A survey of lead-based paint is beyond the scope of this investigation (see Section 1.2) and the property contains no above grade structures.

5.9 Surrounding Land Use and Zoning

On July 11, 2001, field reconnaissance was performed to identify surrounding land uses. The surrounding uses are as follows:

North and northeast: adjacent lot 103, owned by B.B. Greene heirs, listed as a service station with UST's, North Liberty Street, used car lot, JKS Signs (listed hazardous waste generator), beyond;

East: The property to the east was formerly a gas station; Patterson Ave.

South: Martin Luther King Drive Extension, Patterson Court Apts. and Lloyd Pres.Church beyond;

West: Vacant lot, Chestnut Street, former gasoline station at 863 N. Liberty St. beyond.

According to the Forsyth County Zoning and Sub-division Office, the subject properties and adjacent properties are zoned GB, general business (see previously referenced Figure 2). Permitted uses include a wide range of retail, service and office uses with minimal setbacks.

6.0 REGULATORY REVIEW

A review of regulatory information was performed to identify facilities currently engaged in solid waste disposal, hazardous waste generation and handling, underground storage tank operations, and incidents involving releases of petroleum products, hazardous and toxic materials. This review included UST registration and groundwater incident lists, federal NPL sites list, RCRA-TSD facilities list, CERCLIS, the North Carolina SPL list, and Hazardous Waste Generators database, and the Emergency Response Notification System (ERNS) list.

6.1 Underground Storage Tanks (USTs)

Table 1 lists sites within 0.25 mile of the subject site with registered (USTs) per the NC DENR UST registration list downloaded from the NC DENR UST Registration list in April 2001; Table 2 lists sites within 0.50 miles appearing on the NC DENR Groundwater Pollution Incident list appearing as of May 11, 2000:

Table 1: UST Registrations Within 0.25 Miles	
Site Name and Address	UST Sizes (gal.)
Service Distributing Co., Inc., 850 N. Liberty St.	2-20K gas, 1-5K gas, 1-4K gas, 1-2K gas, 1-10K kero, 1-10K diesel
E.G. Forrest Co., 1030 N. Chestnut St.	2K gas, 1-10K gas, 1-10K diesel
Skinner Warehousing, 111 E. 10 th St.	2-1K gas, 1-10K gas, 1-20K fuel oil
Brown-Rogers-Dixon, 675 N. Main Street	No specific information in database
Carolina Narrow Fabric, 1100 N. Patterson Ave.	3-10K fuel oil, 7-5K fuel oil
Brown & Williamson, 600 N. Chestnut Street	1-3K used oil, 1-10K fuel oil, 1-11K fuel oil
RJR Archer, 400 W. 9 th St. (1200 Martin Luther King, Jr. Dr.)	1-2K detergent

Table 2: Pollution Incident File List Sites Within 0.5 Miles			
Incident #	Site Name and Location	Incident Code	Direction/Distance/ Hydrologic Position
18060	City of W-S, Vacant, Liberty @ Chestnut	5	Subject site
18942	Edwards Seat Covers, 847 N. Liberty	4	WSW, ~500', L
20966	Servco #01711, 850 N. Liberty St.	4	W, 400', U
none	City of W-S, former Earl Scheib, 840 N. Liberty	6	W, ~500', L
6992	Salvage Building Materials, 960 N. Liberty	4	NE, ~800', L
16337	RJR-Archer, Bldg. 40-A, 1200 MLK Jr. Dr.	4	E, ~500', D
16338	RJR-Archer, Bldg. 40-B, 1200 MLK Jr. Dr.	3	E, ~500', D
13955	E. C. Daniels, 718 N. Liberty St.	3	WSW, ~1000', L
none	RJRT Bailey Utility, Vine St.	6	SSE, ~600', D
14447	RJRT Bailey Annex, Bldg. 56-2, 7th and Vine	3	SSE, ~600', D
none	B and W Tobacco Corp. 600 N. Chestnut St.	2	S, ~950', D
	Carolina Narrow Fabric, 1100 N. Patterson Ave.	6	N, ~1100', D
	Action Drive, 1102 Ivy Ave.	1	NE, ~1200', D
	E.G. Forrest Co., 1030 N. Chestnut St.	6	N, ~1200', HS
14240	RJRT Forklift Shop, Bldg. 96-6, Linden St.	3	SE, ~1100', D
	Thomasville Furn., Plt H., 1201 N. Patterson Ave.	6	N, ~1450', D
	Thomasville Furn., Plt H-B, 1201 N. Patterson Ave.	3	N, ~1450', D
11471	City of W-S, Transit, 1060 N Trade St.	4	NW, ~1650', HS
20334	RJR Building 96-1, Linden Street	4	SE, ~1700', D
14402	BIMCO, 1007 N. Liberty St.	5	NE, 1500', L
5219	R. J. Reynolds Tobacco Co., 4th and Vine St.	4	S, ~1800', D
	Food Bank of Northwestern NC, 1024 N. Liberty St.	6	NE, ~1700', L
18593	Wade's Amoco, 1300 N. Patterson Ave.	3	N, ~2100', D
none	Hensel Wood Products B, 401 R. 4th St.	2	SSE, ~2100', D
18076	Hensel Wood Products, 406 E. Fourth St.	3	SSE, ~2200', D
15525	Merita Bakery Liberty St., 1115 N. Liberty St.	4	NE, ~2100', L
	Merita Bread, 1115 N. Liberty St.	6	NE, ~2100', L
5250	Camel City Cleaners, 501 E. Third St.	4	SSE, ~2500', D
none	Piedmont Natural Gas, 250 Linden St.	6	SE, ~2600', D
none	City of W-S, Wachovia Bldg., Main St.	1	SSW, ~2500', D

Notes on incident codes:

- | | |
|--|---|
| 1. Notice of Intent to close UST(s). | 4. Confirmed groundwater contamination. |
| 2. Report(s) recorded but unclassified pending review. | 5. Confirmed soil contamination, remediated and closed. |
| 3. Confirmed soil contamination. | 6. Non-incident closure. |

Notes on hydrologic position (based on topography):

- | | |
|---|---|
| D: Apparently hydrologically downgradient | L: Apparently hydrologically lateral |
| U: Apparently hydrologically upgradient | HS: Apparently hydrologically separated |

Three NC DENR Pollution Incident files were reviewed from among the sites listed in Table 2. These include the City of Winston-Salem vacant lot, the Edwards Seat Cover site, located southwest of the subject site, the Servco #01711, located northwest of the subject properties at 850 N. Liberty Street, and Salvage Building Materials, located about 2500 feet northeast (920 or 960 N. Liberty Street). Following are summaries of these reviews:

City of Winston-Salem, Vacant Lot, 875 N. Liberty Street

The incident referred to as the City of Winston-Salem vacant lot west of the subject properties. As was noted in the Sanborn map descriptions, the property was, in the past, part of a larger property on which a filling station had been located. A November 20, 1997 UST Closure Report for this site indicates that four 3000 gallons USTs of unknown contents were discovered on the property in August 1997, during demolition activities related to the construction of the MLK Extension project. Of eight soil samples collected from beneath the USTs, one exceeded the 10 parts per million (ppm) standard by method 5030 for Total Petroleum Hydrocarbons (TPH). A soil boring (SB-1) was performed, and a sample from 23.5 to 25 feet tested below detection limits by methods 5030 and 3550. A Site Sensitivity Evaluation was performed. A December 12, 1997 memo from the Winston-Salem Regional Office (WSRO) of the UST Section to the Incident Management Database personnel indicated the site had been successfully remediated and recommended site closure.

Although the property contained USTs and evidence of a release, the existence of documentation indicating the site was successfully remediated and closed by the WSRO UST Section suggests that the site should be considered an historical recognized environmental condition with institutional controls with regard to the UST Closure proceedings.

Interview information with a Real Estate representative with the City indicated a conflict regarding these tanks. According to Ms. Marie Roberts, City personnel involved in the demolition of the onsite building indicated that USTs were not found. The title of the NC DENR file refers to a "Vacant Lot," suggesting that demolition of the structure had already occurred by the time the USTs were removed. A map included in the UST Closure report shows the tanks very near N. Liberty Street, probably in the right of way. It appears likely that the tanks were discovered after demolition, during the widening of the Liberty Street.

City Engineering Division Engineer Andrea Keyser, who was involved in the design of the Liberty Street and MLK modifications verified that tanks had been present on the City owned property near Liberty Street (possibly in the right-of-way) and they were removed to accommodate street widening.

Former Edwards Seat Covers, 847 N. Liberty Street

The former Edwards Seat Covers was acquired by the City of Winston-Salem as a part of the extension of MLK. The property is located at 847 N. Liberty Street, about 500 feet west- of the subject properties.

Three USTs (1-550 gallon, 2-1000 gallons) of unknown contents were removed in June 1998 following their discovery during street construction. UST Closure samples indicated evidence of a release exceeding the soil to groundwater standard in two soil samples from the same UST pit (the other pit, containing two USTs, was located on a different part of the property).

A Limited Site Assessment (LSA) Phase I Report was submitted to the WSRO in December 1998. An LSA boring was performed in the release area, and soil samples were collected at 10, 20, and 30 feet below grade. These samples tested below detection limits by the Massachusetts Methods (MADEP) and by EPA methods 8260 and 8270. A groundwater sample from the monitoring well constructed in the LSA boring contained MADEP concentrations below the interim standards for comparative ranges, and small quantities of compounds from the EPA method 602 target list, none of which exceeded 2L standards. By EPA method 601, two compounds, cis 1,3-dichloropropene and tetrachloroethene (PCE) were noted above 2L standards, as was ethylene dibromide (EDB) by EPA method 504.1.

The file contained information indicating that the monitoring well was abandoned. A December 1, 1998 letter from the consultant to NC DENR requested site closure; however, the file contained no evidence of site closure. The risk to the subject site from petroleum hydrocarbons, however, seems minimal because groundwater flow, suggested by topography, should be to the south, rather than to the east (in a direction that should not impact the subject site). Therefore, the site is de minimis with regard to the UST release. The source of the PCE, a cleaning solvent that is difficult to remove from the environment, is unknown. Therefore, it is not possible from the file information to determine its potential impact to the subject site.

Servco #-01711, 850 N. Liberty Street

This site, located about 400 feet west of the subject sites at nearest points (850 N. Liberty Street) was formerly occupied by a gasoline station. In May 1999, seven underground storage tanks (USTs) were removed from this site. Thirteen closure soil samples contained concentrations of petroleum fuels in the gasoline range above the 10 ppm standard, the highest of which was 5700 ppm. Seven samples contained concentrations above the diesel range standard, with a high of 3400 ppm.

The UST Section issued a Notice of Regulatory Requirements for a Limited Site Assessment, Phase I in December 1999, and followed with a Notice of Violation (because an LSA had not been performed) in May 2000.

A portion of the LSA report was submitted in the Summer of 2000, and was reviewed by the UST Section in August 2000. According to excerpts from this report, five regolith monitoring wells were installed at the site in January and February 2000. Although all five borings contained some analytical indication of impact, only MW1, located along the Chestnut Street side of the property, contained soil concentrations exceeding the applicable standards.

Groundwater samples from these wells indicated evidence of impact above applicable groundwater standards in three of the five monitoring wells. MW-2, located in the southeast quadrant of the site (and nearest the subject property) could not be sampled due to the presence of free product. According to the report, about 75 gallons of free product had been recovered through 3/30/2000 by both hand bailing and one AFVR Event. Product thickness referenced in the report (six measurements from 2/9/2000 through 3/30/2000) indicated a low of 1.3 feet (about a week and a half after the AFVR Event) to a high of 5.08 feet (the day of the AFVR Event). MW-5, the downgradient well based on a flow map provided in the report, contained a number of compounds and/or carbon ranges, but none above the 2L standard. Additional information was requested by the UST Section in July 2001.

The Servco site appears to lie slightly above the subject property topographically, but the flow map (previously referenced) indicated flow to the northwest. It is unclear whether this flow direction is accurate. Based on topography and the site's location near the high point in the area, it is possible that flow could also be directed to the south and southeast. Its distance from the subject site, and the possibility that primary flow is away from the site, suggest that the Servco incident represents a moderate risk to the subject property; however, it must be considered a recognized environmental condition.

Salvage Building Materials, 920 or 960 N. Liberty Street

There is confusion about the location of this property. The incident list identifies the site as 960 N. Liberty Street, at the corner of Ivy Avenue and N. Liberty Street. This location is about 800 feet from the subject site, and would be considered a minimal risk based on distance (for regolith transport). However, a map in the NC DENR incident file lists the location as 920 N. Liberty Street, which could be as close as 200 feet at the nearest point. The site was formerly occupied by a gasoline station, according to a December 1991 report of phase II soil and groundwater sampling activities. The report indicated that, at an earlier date, two gasoline USTs and one kerosene UST were closed by removal, but a waste oil UST was left in place. The report indicates that four soil borings were performed in the vicinity of the removed USTs. Soil samples from three of the borings tested below detection limits for TPH; a sample from the fourth boring contained 12 ppm TPH (inferred to be by method 3550).

One groundwater monitoring well was installed as part of this assessment (near the intersection of Ivy Avenue and 10th Streets). One groundwater sample from this well indicated the presence of TCE at 44 parts per billion (ppb) and chloroform at 13 ppb, both of which exceed NC 2L groundwater standards. The file contained no information about later assessment or remediation work. The distance to the site is a de minimis risk to the subject site with regard to the petroleum hydrocarbons associated with the UST incident. Given the persistence of chlorinated solvents in the subsurface and the lack of information regarding a source, it is unknown whether this occurrence is related to a larger release or is of limited scale.

Although none of the reviewed outlying sites appears to represent a material threat to the subject property, they are considered recognized environmental conditions based on: 1) The presence of chlorinated solvents at two separate locations, each without an identified source, and; 2) Free product at the Servco site with a lack of clarity about flow direction. Copies of DENR file information for these sites are located in Appendix C.

6.2 Solid Waste

Based on recent telephone conversations, Ms. Wendy Simmons, Forsyth County representative of the North Carolina Division of Solid Waste Management, indicated that no permitted solid waste disposal facilities are located within 0.50 mile of the subject site.

6.3 Hazardous Waste

Recent telephone conversations with Mr. Steve Phibbs, Hazardous Waste Specialist in the Winston-Salem Regional Office of the North Carolina Division of Hazardous Waste Management, indicated he was unaware of uncontrolled or unauthorized releases of hazardous waste having been

reported for the subject sites. The following sites, within 0.25 miles of the subject site, were identified on the RCRA Notifiers List of Hazardous Waste Generators.

No Resource Conservation and Recovery Act (RCRA) permitted or interim status facilities, or RCRA TSD (transport, storage, and disposal) facilities were noted within one mile of the subject site. Several RCRA generators were noted within 0.25 miles of the subject site (based on RCRA Notifiers lists provided by NC DENR on 12/2/99). These are noted in Table 3:

Table 3: RCRA Notifiers List (Generators) Sites Within 0.25 miles			
Facility Name	Address	Status	Direction/Distance/ Hydrologic Position
JKS Sign Co.	876 N. Liberty St	CEG	~50' N, U
Brown & Williamson Tobacco Co.	600 N. Chestnut St	SQG	~1050' S, D
RJR Bldg 95-1	7th and Linden Sts	SQG	~1200' ESE, D
Carolina Narrow Fabric Co.	1100 Patterson Ave	CEG	~1000' N, HS
RJR Archer, Inc.	400 E. 9th St	CEG	~900' ENE, D

Codes for RCRA Notifiers List

SQG: Small quantity generator
 CEG: Conditionally exempt generator
 D: Apparently hydrologically downgradient based on topography
 L: Apparently hydrologically lateral based on topography
 U: Apparently hydrologically upgradient based on topography
 HS: Apparently hydrologically separated based on topography

Among these, the only site in close proximity to the subject sites is the JKS Sign Co, located just north, across N. Liberty Street. No evidence was noted of releases or violations was noted in the RCRIS query for this site.

The following sites within 0.5 miles of the subject site were identified on the federal CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) sites list, the NC Superfund Section list, and/or the Inactive Hazardous Sites Inventory:

Table 4: CERCLIS, NC Inactive Hazardous Sites, or NC Superfund Facilities Within 0.5 Miles				
Facility Name/ID#	Address	List	Status	Direction/Distance/ Hydrologic Position
RJR Tobacco Co. Bldg. 91, NCD000616466	Fifth St. and Patterson Ave.	Inactive Hazardous Sites, CERCLIS/Wastelans, NC Superfund	NFRAP (under CERCLA)	~1500 S, D
RJR Tobacco Co Bldg. 95-1 NCD000616474 (Central Supply)	7th and Linden Sts	Inactive Hazardous Sites, CERCLIS/Wastelans, NC Superfund	NFA	~1000' SE, D
WS Coal Gas Plant #1 NCD986188845	between 3rd and 4th Sts	Inactive Hazardous Sites, CERCLIS/Wastelans, NC Superfund	NFRAP (under CERCLA)	~2200' SSE, D

In previous interviews, Mr. Steve Phibbs, Hazardous Waste Specialist in the Winston-Salem Regional Office of the NC Division of Waste Management, indicated that the RJR Building 91 facility may have appeared on the list as a potential source, but no specific information regarding a release is known about this facility. The RJR 95-1 facility (central supply), was formerly a temporary storage location for RJR Tobacco hazardous waste. The facility was closed for this use in 1986. Currently, acids and caustics, and oils are stored here, but not waste materials. It is

classified as a No Further Action site. Both sites lie a significant distance downgradient from the subject properties, and appear to represent minimal risk.

The Winston-Salem Coal Gas Plant #1, located between Third and Fourth Streets, lies nearly 0.5 miles south-southwest of the subject sites, and is classified as a No Further Action site under CERCLIS. In November 2000, the site was included on the NC Inactive Hazardous Sites Priority list, but no additional work was required at the time. This site appears to pose little risk to the subject sites based on topography (and inferred hydrologic position) and distance.

A second site within 1.0 miles of the subject properties was noted on the NC Sites Priority List (received 12.2.99 from NC DENR). This site, the Winston-Salem Coal Gas Plant #2 (facility ID#NCD9861888852), was formerly located near High and Branch Streets. This site is classified as a No Further Action site, and appears to represent little risk to the subject property based on its distance (~4700 feet) and apparently downgradient hydrologic position. No facilities appearing on the federal National Priority List (NPL) were noted within one mile of the subject site.

A July 31, 2001 review of information on the Emergency Response Center (ERC) website indicated no reported response actions for the subject site and adjacent properties. A review of data on the EPA Envirofacts Toxic Release Inventory System (TRIS) website (July 31, 2001) indicated no toxic release reports for the subject sites and adjacent properties.

6.4 Local Fire Marshal

In July 2001, GeoSci faxed to Ms. Jennene Kirkland, Computer Information Analyst at the Winston-Salem Fire Department, an inquiry regarding records on file indicating fires or uncontrolled surface releases of fuel products or chemicals in the 800 block of N. Liberty Street. GeoSci received a response by mail, dated July 17, 2001, indicating a number of incident responses, including structure fires, vehicle fires, grass fires, refuse fires, explosions, spills or leaks without ignition, downed power lines, and arcing of electrical equipment. No incidents were reported for the subject properties or contiguous properties. The nearest reported incidents were at 876 and 884 N. Liberty Street, on the north side of Liberty Street from the subject properties. Both of these incidents were vehicle fires, and appear to represent little risk to the subject properties. The nearest reported spill response was at the Servco site, 850 N. Liberty Street, located about 300 feet from the subject properties. Appendix D contains a copy of the Fire Department report.

7.0 SUMMARY

Geoscience and Technology, P.A. (GeoSci) has completed a Phase I Environmental Site Assessment for the property designated as Forsyth County Tax Block 0203, Lots 102,104 and 206C N. Liberty Street and N. Chestnut Street, Winston-Salem, NC. The properties, currently owned by the R.J. Reynolds Tobacco Company, lie southeast of the intersection of N. Liberty and Chestnut Streets, just north of Winston-Salem's Central Business District. No surveys were performed for asbestos-containing materials, lead-based paint, or radon gas.

Sanborn fire insurance maps and Business Directory listings were used as historical sources, which documented lot 102's historic usage as a filling station, an auto repair facility, roofing company, a body and trim shop, and a used car lot. Lots 104 and 206C have been primarily residential.

The site inspection revealed surface litter, but no evidence of current dumping, chemical or fuel storage, and no surficial staining was noted beneath pole-mounted transformers along the northern property boundary.

Sanborn maps from 1949 indicate UST's on lot 102, presently owned by R.J. Reynolds,. Two reviewed sites within 600 feet (former Edwards Seat Covers, 847 N. Liberty Street, Salvage Building Materials, 920 N. Liberty Street) had evidence of releases of fuel products, and chlorinated solvents. Neither site assessment appears to have identified a solvent source. The distances from these sites make both de minimis with regard to the reported petroleum fuels releases; however, the occurrence of solvents without a known source represents a recognized environmental condition. Lot 103, owned by the heirs of B.B. Greene, has been a service station and related services, since the 1940's. Review of reports of that site indicates the presence of underground storage tanks. The condition and contents of these UST's are unknown and they have the potential to have an adverse environmental impact on the subject sites.

One site about 400 feet west of the subject property (Servco, 850 N. Liberty Street) had evidence of petroleum free product without clear definition about groundwater flow direction. This incident represents a recognized environmental condition, but not a material threat to the subject site based on distance and the fact that another party has undertaken assessment.

No facilities appearing on the federal National Priority List (NPL) were identified within one mile of the subject sites. Three sites from the CERCLIS list or the State Hazardous Waste Sites list were noted within one mile, one of which is a recent addition to the NC Sites Priority List. All three sites are no further action sites under CERCLIS. No RCRA Transport, Storage, or Disposal facilities, or sites under Resource Conservation and Recovery Act (RCRA) corrective action were identified within one mile. No sites were noted within one mile on the RCRA permitted or interim status facility list (sites under assessment or remediation under the (RCRA). Several RCRA Notifiers (hazardous waste generators) lie within 0.25 miles, the nearest of which lies across N. Liberty Street from the subject sites. This site is a conditionally exempt generator based on quantity of waste generated, and no evidence of permit violations was noted. The subject site and adjacent properties did not appear on July 31, 2001 queries of the Toxic Release Inventory System (TRIS) or Emergency Response Notification System (ERNS) electronic databases. No known permitted solid waste operation was identified within 0.50 miles.

8.0 LIMITATIONS OF THE INVESTIGATION

This Environmental Site Assessment was developed in general accordance with national standards for good commercial and customary practice as defined by the American Society for Testing and Materials. It should be noted, however, that this assessment is being performed through The City of Winston-Salem Department of Enterprise Community Development, under a USEPA Brownfields Pilot study grant. The Brownfields program excludes structures and potential environmental concerns arising from them. Therefore, no assessment was performed with regard to radon gas, asbestos-containing-materials (ACMs) or lead-based paint. Exclusion from the Brownfields program does not, however, excluded these materials from consideration with regard to the site's environmental quality. Health, safety, and environmental quality issues related to these materials should be pursued as a part a comprehensive assessment of site conditions, independent of this investigation.

This assessment is based on information provided by municipal, state and federal agencies, from aerial photography, from on-site observations, from interviews with property owners and with regulatory personnel. In preparing this report, GeoSci may have reviewed and interpreted information provided to it by third parties, including government agencies, testing laboratories, and other private entities. GeoSci did not conduct an independent evaluation of the accuracy or completeness of all such information.

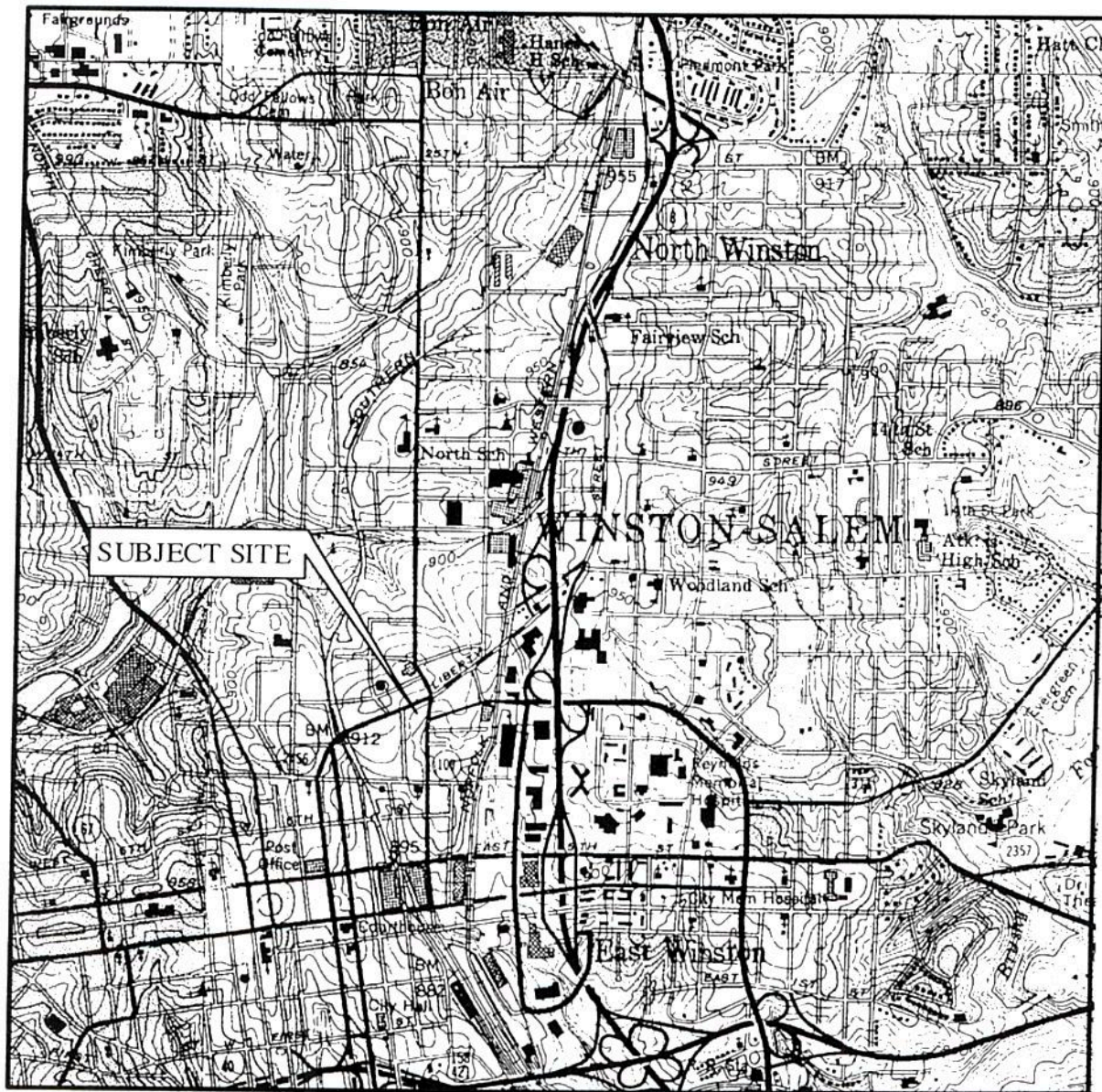
Due to the limited nature of the investigation, GeoSci cannot warrant that all areas within the subject site are of the same quality as that inferred from conditions observed at the surface, nor that future conditions (i.e., after the period in which the assessment was performed) will remain the same as those observed during the performance of this assessment. In the event environmental sampling is performed, either by GeoSci or by others, we reserve the right to revise our opinion as to the presence and scope of environmental hazards at the subject sites. In addition, documents pertaining to the investigation may not have been available at the time of the writing of this report. GeoSci reserves the right to revise its opinion as to the presence of environmental hazards upon review of any additional information obtained. Conditions noted at the site represent observations for July 11, 2001; the data review portion of the assessment is restricted to the regulatory lists and databases available as of the noted review dates.

This report was prepared for the sole use of R.J. Reynolds Tobacco Company (as property owner), and The City of Winston-Salem Department of Enterprise Community Development, under a USEPA Brownfields Pilot Study Grant. Use of the report or data from this assessment by other third parties is at their sole risk; GeoSci disclaims any liability for such third party use or reliance.

9.0 REFERENCES AND RESOURCES

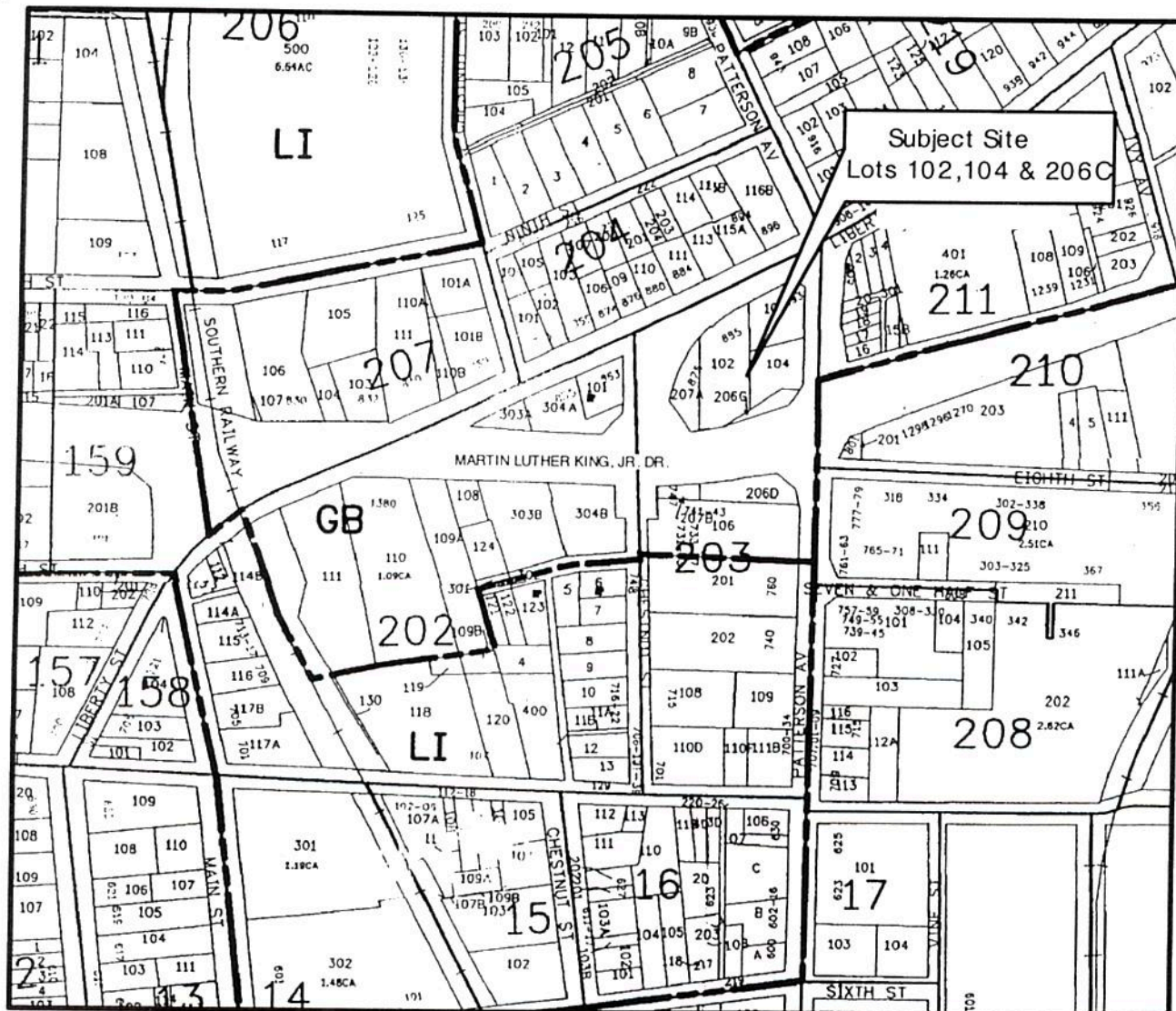
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FIGURES



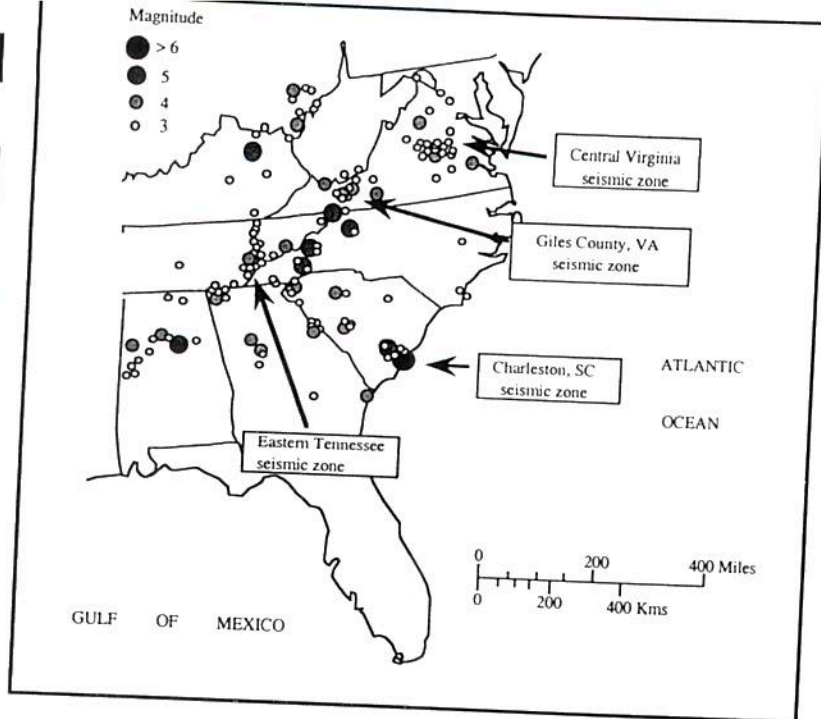
Source: USGS Winston-Salem East and Winston-Salem West
U.S.G.S. 7.5' topographic quadrangle maps, 1" = 2000.'

Title: Site Location Map	Project: RJR Tobacco Phase I	Scale: 1" = 2000'	Date: 9/28/01	GeoScience & Technology, P. A. <i>"Practical Engineering & Environmental Solutions"</i> Winston-Salem, NC (336) 896-1300
	Job No.: 01.217	Location: Winston-Salem, North Carolina	Figure No.: 1	Revision No.: 0



Map Source: Winston-Salem/Forsyth Zoning Map # 630858 (with Tax Block and Lot ID), original scale 1" = 200.'

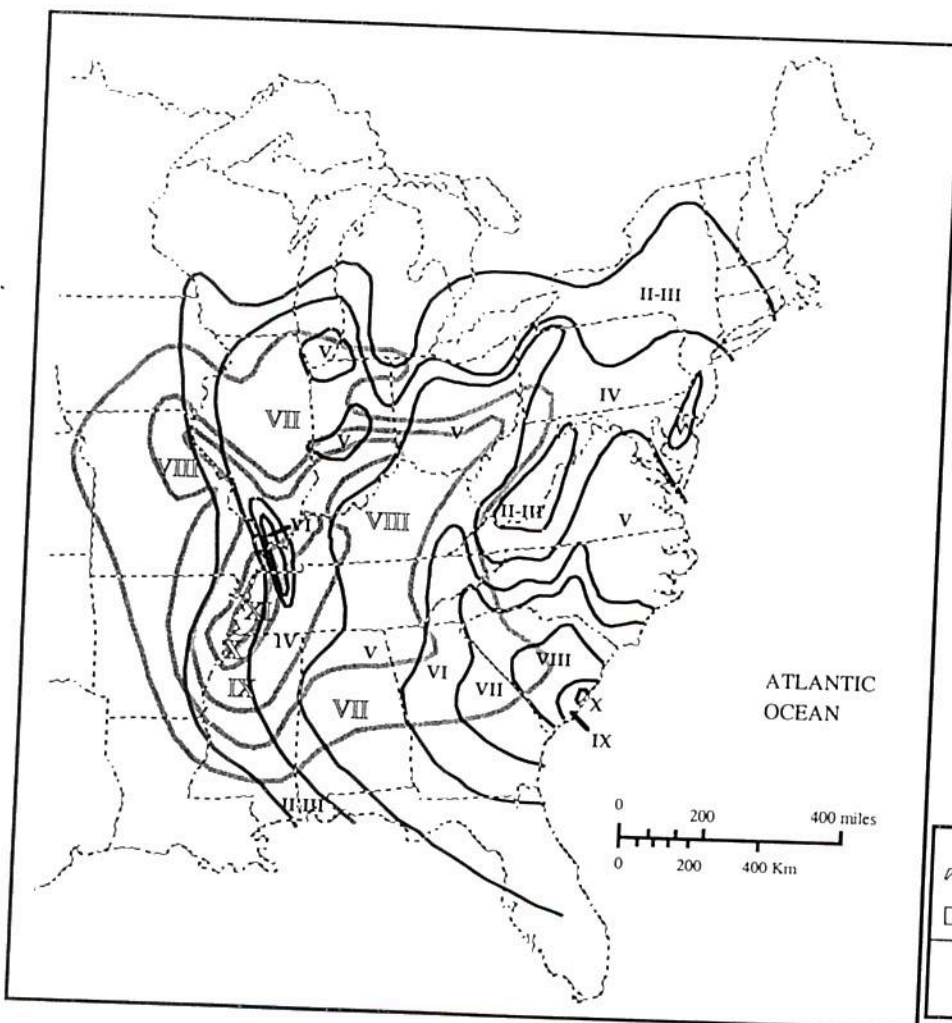
Title: Site Identification Map Winston-Salem Zoning Map Tax Block 203 Lots 102, 104 & 206C Maps #630858	Project: R.J.R. Tobacco Co. Phase I	Scale: 1" = 300'	Date: 9/28/2001	<div data-bbox="1062 1810 1370 1900"> GeoScience & Technology, P.A. <i>Practical Engineering & Environmental Solutions</i> </div> <div data-bbox="1039 1942 1403 1978"> Winston-Salem, NC (336)896-1300 </div>
	Job No.: 01.217	Location: Winston-Salem, North Carolina	Figure No.: 2	



Seismicity of the Southeast United States 1568 - 1987

Seismicity of the southeastern U. S. showing earthquakes of magnitude 3 or greater that occurred between 1568 and 1987 (modified from Bollinger, 1990). Small to moderate-sized earthquakes are common within the Blue Ridge and Valley and Ridge provinces of the southern Appalachian Mountains and in the coastal plain of South Carolina. Earthquakes in the Piedmont of North Carolina are rare.

GeoScience & Technology, P.A. <i>"Practical Environmental Solutions"</i>	Seismicity of the Southeastern U.S. 875 Liberty St. Phase I ESA
	From G.A. Bollinger, Virginia Polytechnic Institute, 1990
	01.185 Figure 3a



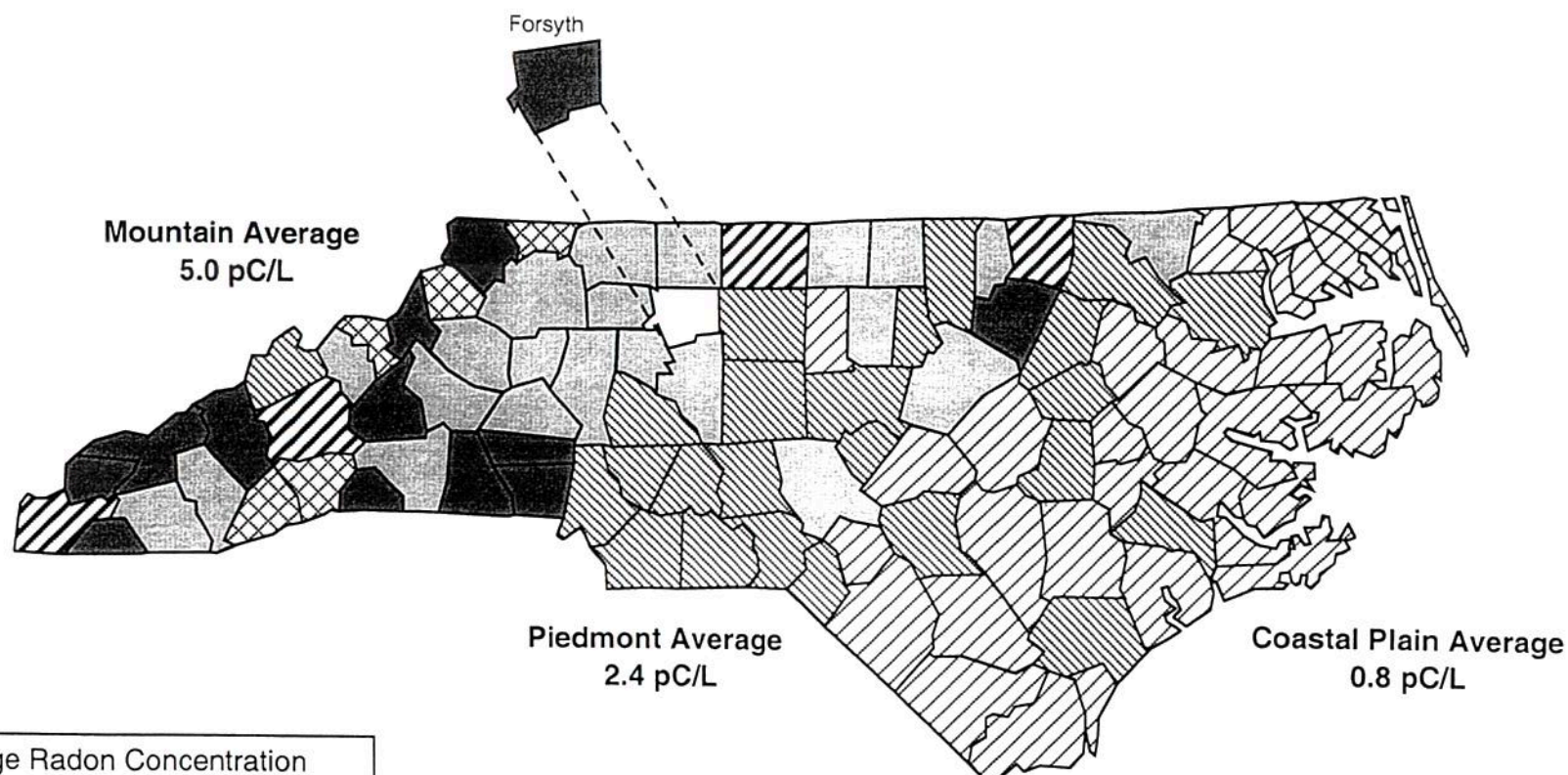
Isoseismals of the 1886 Charleston and 1811-1812 New Madrid Earthquakes

Intensity of shaking in the eastern US resulting from two great historical earthquakes is shown with isoseismals, contours of equal seismic intensity (modified from Bollinger, 1977 and Hopper, 1985). Solid lines and black Roman numerals define the shaking pattern of the 1886 Charleston earthquake; gray lines and white numerals define the pattern of the largest 1811 New Madrid event. Seismic intensity ranges from X-XI (most masonry and frame structures destroyed, general panic) in epicentral areas to II-III (felt only by persons at rest, vibration like passing of a light truck) at great distance. The strongest shaking in the Piedmont was VI-VII (felt by all, furniture moved, some damage to masonry) resulting from the 1886 Charleston, SC earthquake. The probability of a great earthquake recurring in the next 50 years in the southeastern US has been estimated at less than 5% (Johnston and Nava, 1985; Amick and Talwani, 1986).







GeoScience & Technology, P.A. <i>"Practical Environmental Solutions"</i>	Isoseismals of Great Eastern U.S. Earthquakes RJ Reynolds Phase I ESA
	From Bollinger, 1977 and Rankin, 1977
	01.000 Figure 3b

RADON LEVELS IN NORTH CAROLINA

7,025 Homes - Non Statistical



Average Radon Concentration

-  0 - 1 picoCuries per Liter
-  1 - 2 picoCuries per Liter
-  2 - 3 picoCuries per Liter
-  3 - 4 picoCuries per Liter
-  4 - 6 picoCuries per Liter
-  > 6 picoCuries per Liter

State Average 2.6 pCi/L

Radon concentration in 17% of homes
exceeded 4.0 pCi/L

**GeoScience &
Technology, P.A.**
"Practical Environmental Solutions"

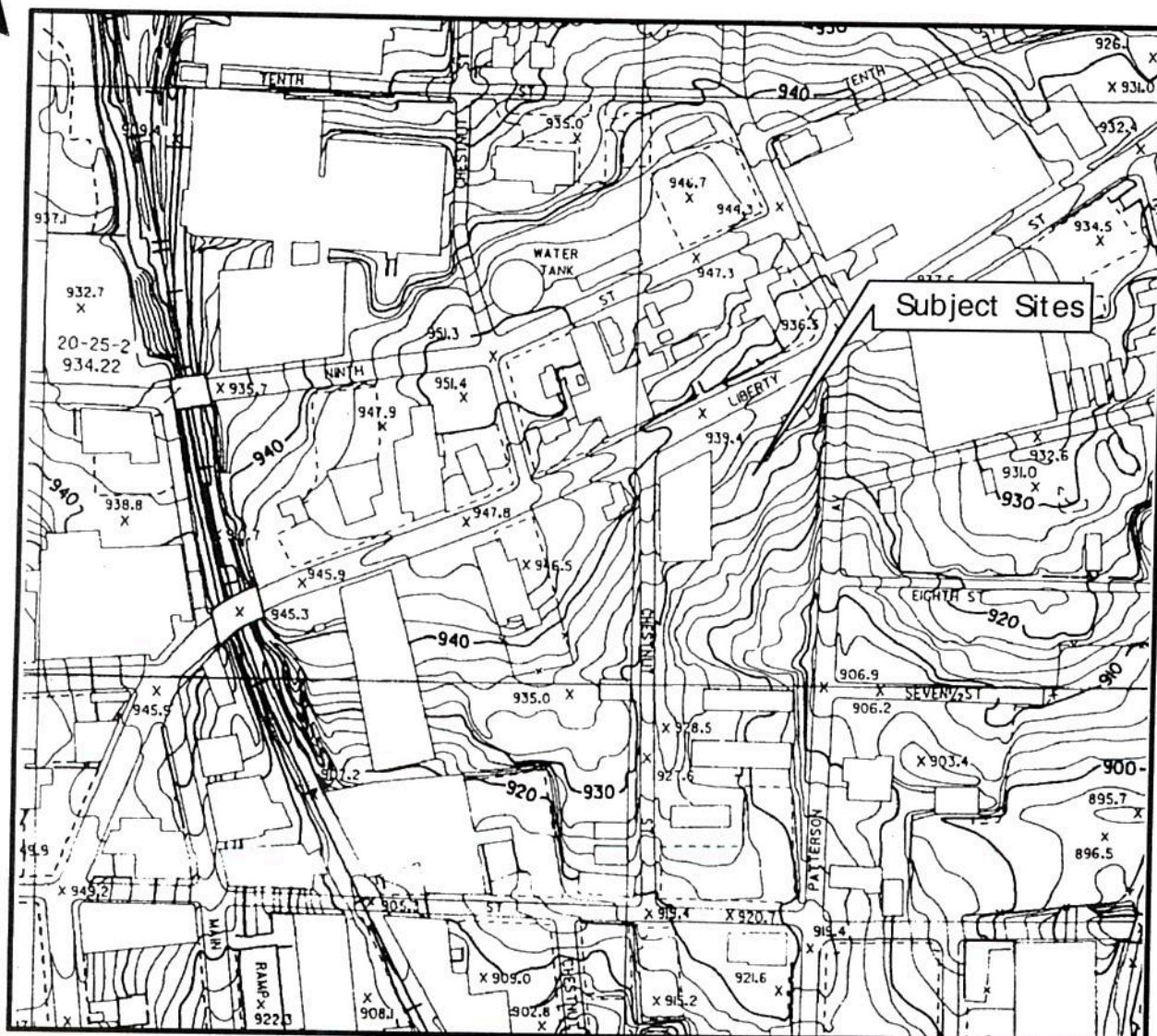
**Radon Levels in
North Carolina**

RJR Lots 102,104 & 206C
Phase I ESA

From 1992 NC Division of Radiation Protection
compilation of data supplied by vendors,
research organizations and private citizens.

01.217

Figure 4



Tax Block 203 Lots 102,104 & 206C
Maps #630858

ESA
Phase I

Job No.:
01.217

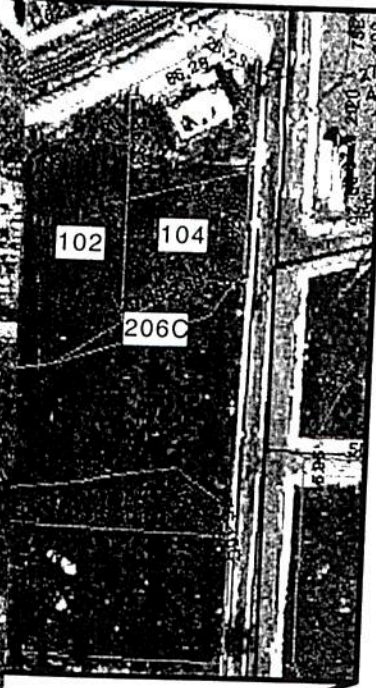
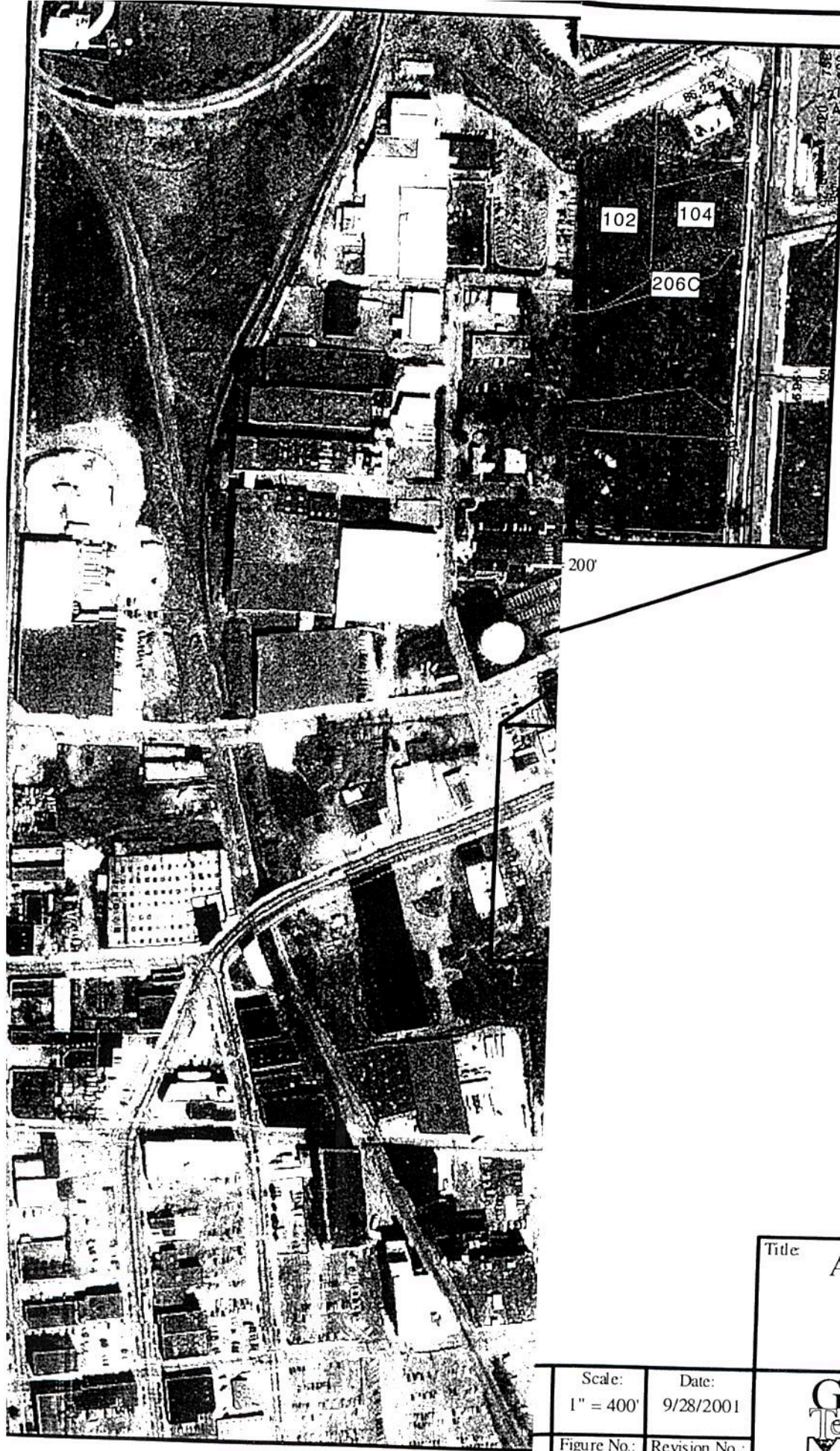
Location:
Winston-Salem,
North Carolina

5

0

GeoScience & Technology, P. A.
"Practical Engineering & Environmental Solutions"

Winston-Salem, NC (336)896-1300



200'

Title

Aerial Photograph
(as of July 10, 2001)
Map #630858

Scale:
1" = 400'

Date:
9/28/2001

Figure No.:
6

Revision No.:
0

**GeoScience &
Technology, P. A.**
"Practical Engineering &
Environmental Solutions"

Winston-Salem, NC (336) 896-1300



Photo of lots 102, 206C & 104 looking north MLK, Jr. Boulevard in foreground

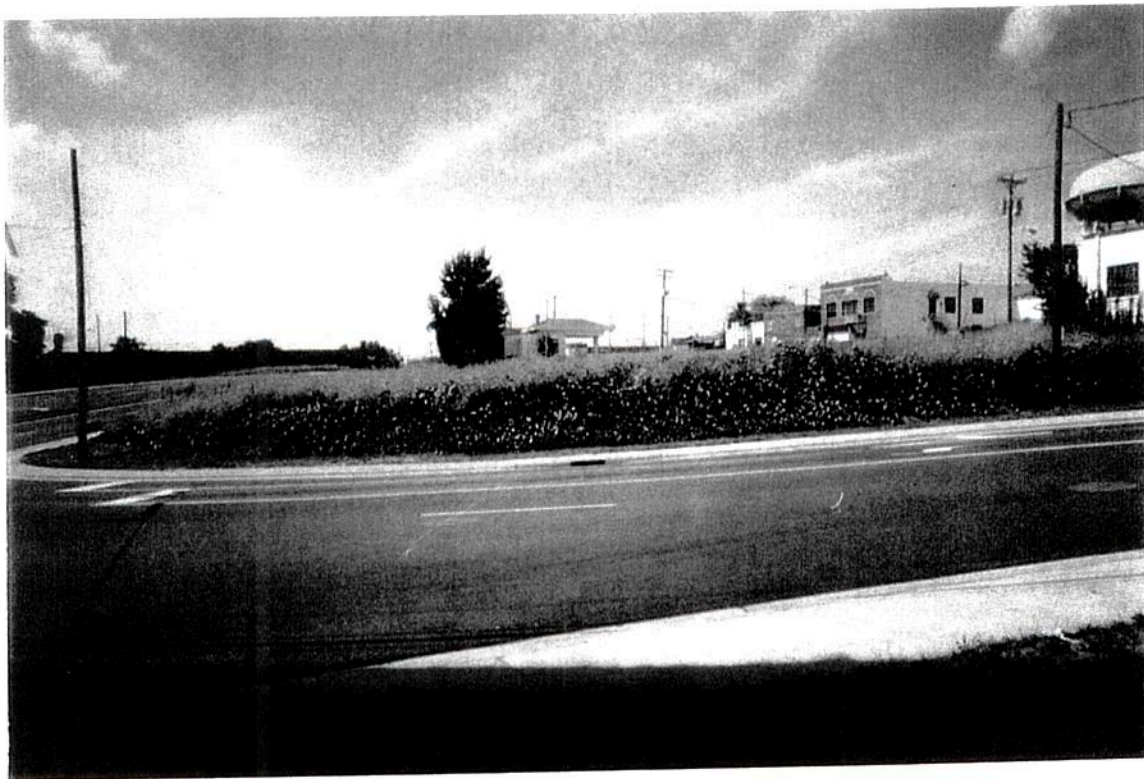


Photo of lots 104 & 206C looking west
Patterson Avenue in foreground



Photo of lot 102 looking south

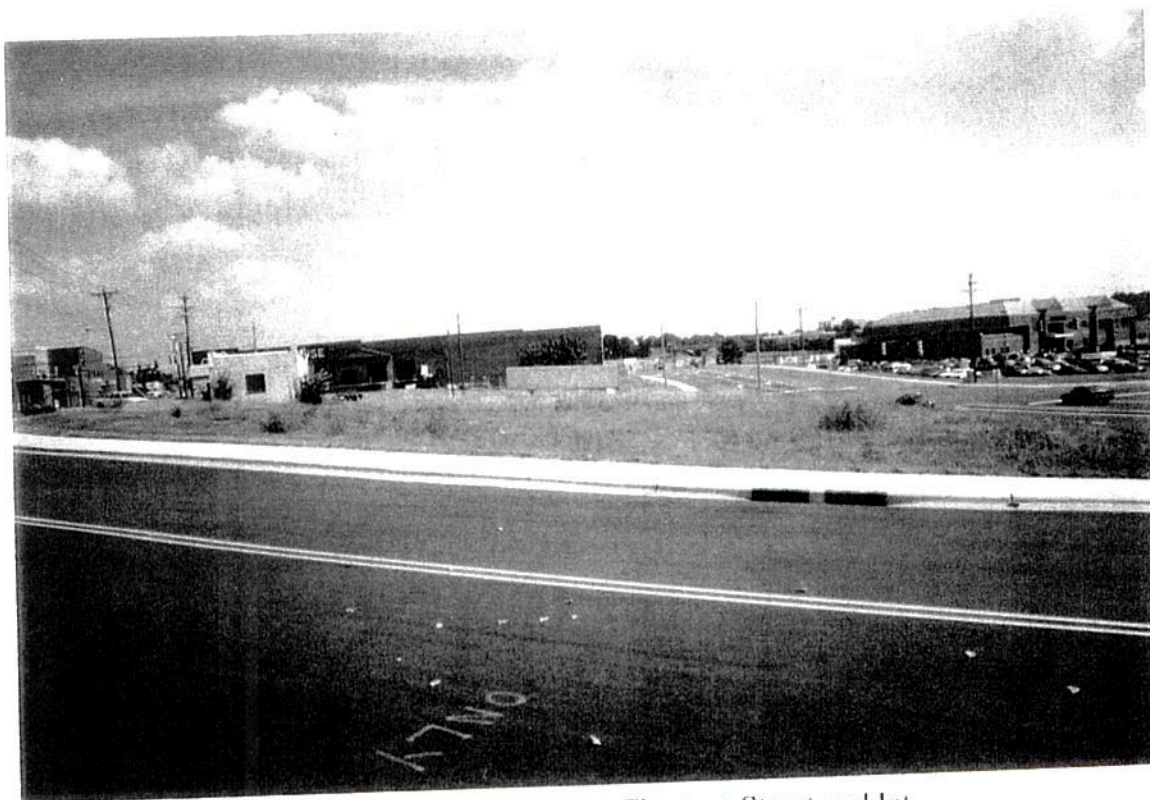
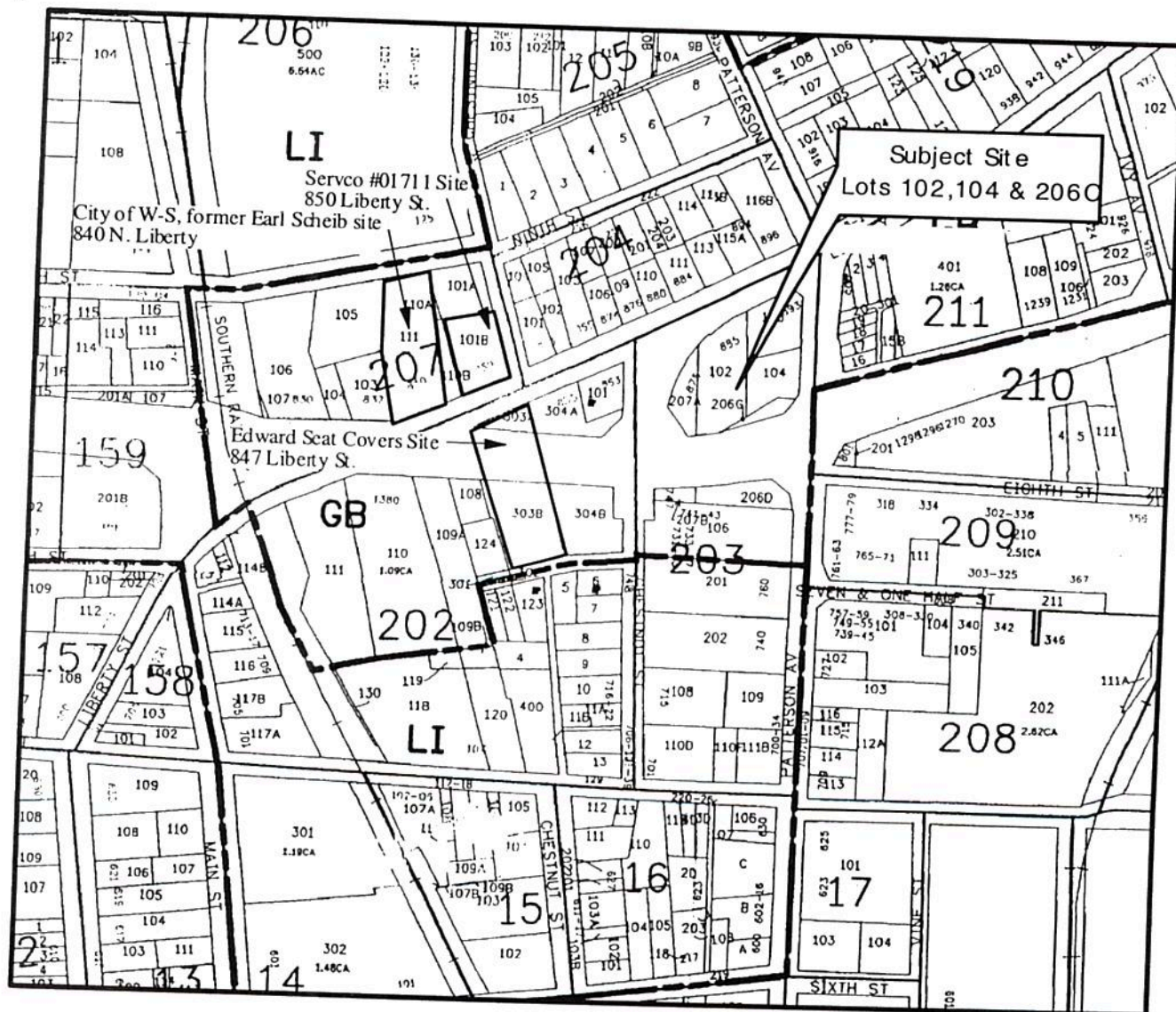


Photo of lot 102 looking east, Chestnut Street and lot owned by City of Winston-Salem in foreground



Map Source: Winston-Salem/Forsyth Zoning Map # 630858 (with Tax Block and Lot ID), original scale 1" = 200.'

Title: Key to Incident Listings	Project: Lots 102, 104 & 206C ESA Phase I		Scale: 1" = 300'	Date: 9/14/2001	<div data-bbox="1055 1795 1380 1942"> <p>GeoScience & Technology, P.A.</p> <p>"Practical Engineering & Environmental Solutions"</p> </div> <p>Winston-Salem, NC (336)896-1300</p>
	Job No.: 01.217	Location: Winston-Salem, North Carolina	Figure No.: 8	Revision No.: 0	

APPENDICES

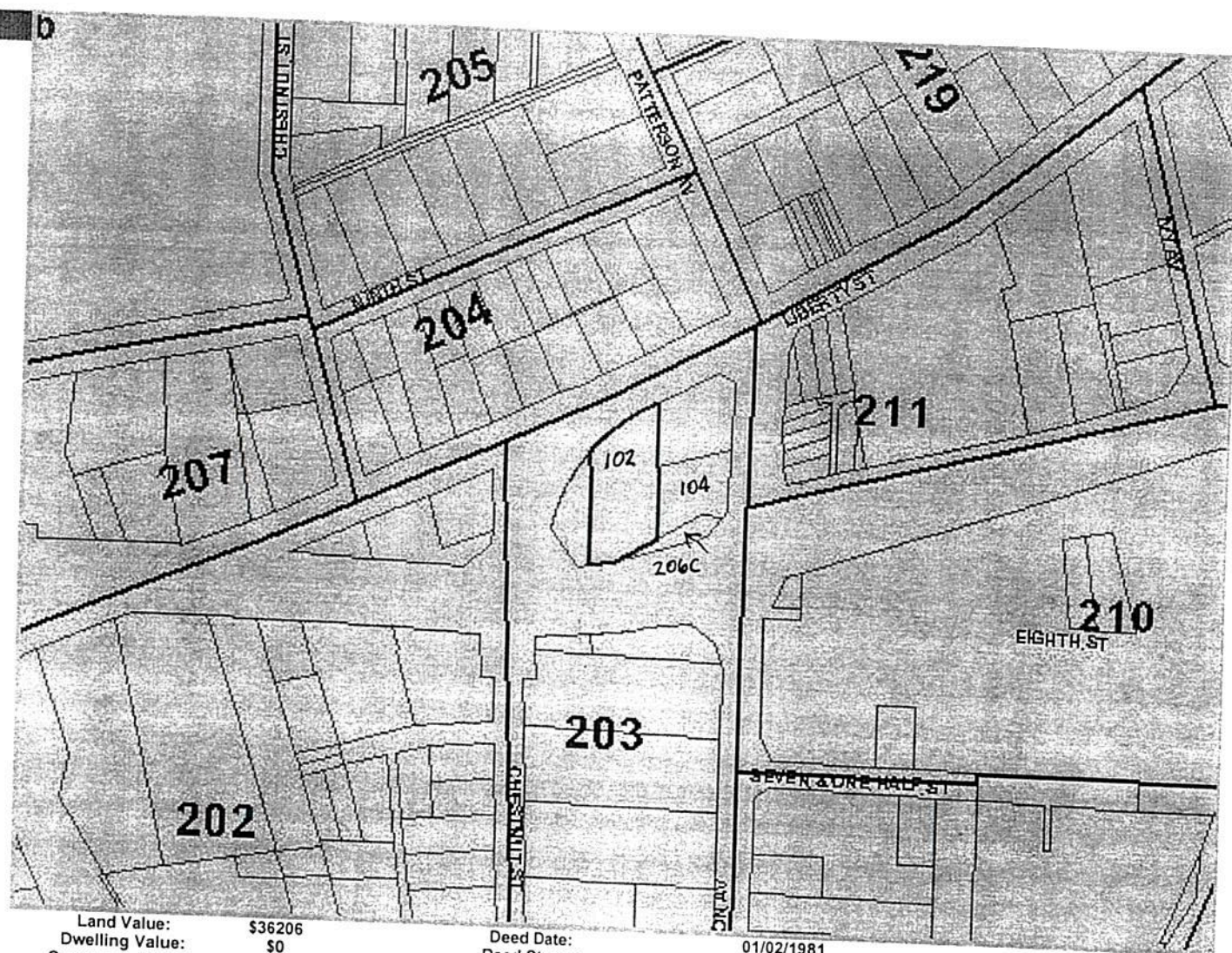
APPENDIX A
Forsyth County Tax Record



Forsyth County, North Carolina Geo-Data Explorer

Legend

Tax Parcels	
Blocks	
Block	4700
Property Address	7500
Parcel Dimensions	120.0
Lot	222



Land Value: \$36206
 Dwelling Value: \$0
 Commercial Value: \$0
 Industrial Value: \$0
 Misc. Imp. Value: \$0
 Real Value: \$36200

Acreage: .37
 Sq. Ft. Living Area: 0

Deed Date: 01/02/1981
 Deed Stamp:

Tax Jurisdiction: Winston-Salem
 Property Address: 0 CHESTNUT ST N
 Property City: WINSTON-SALEM
 Census Tract: 2.00
 Voting Precinct: 403
 Fire Demand Zone: 15-Police dept. calls for service for zone
 Elementary School: BRUNSON

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD

Block Lot: 0203 206C, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: 747 CHESTNUT ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:

LAND TYP	ZONING	ACREAGE	FR	RE	AV	SQFT	PB	RATE	S-F	UT	LC	RF	TO	SH	AC	EZ	VALUE
CL	GB					2,405	04	2.50	1.2000	0.9				0.5			3,247
TOTAL ACRGE:		ROAD: PB-PVD						TOPO: DES						UTIL: C-WATER GAS SEWER			

RESIDENTIAL	HGT	CON	STYLE	YEAR	GRADE	REP	VAL	PY	EF	VALUE
LAND:				THIS	CARD		ALL	CARDS		
				3,247				3,247		

LAND:	3,247	3,247
-------	-------	-------

DWEEL:

M.I.:

COMM:

IND:

TOTAL:	3,247	3,200
--------	-------	-------

MISCELLANEOUS IMPROVEMENTS

TYPE	CONSTR	HGT	SIZE	AREA	RATE	YEAR	CND	B-VAL	GRADE	PY	EF	VALUE	NOTE
DATE	ESTATE	FILE	STAMPS	OTHER	BOOK								

DATE	ESTATE	FILE	STAMPS	OTHER	BL	BOOK/PAGE
01/16/1993						1750-2207

9/1/6/1992						
TAI	110	%	5D1	%	5D2	%

TN	JUR	%	FD1	%	FD2	%
WS	WS	100				

WS	WS	100
----	----	-----

NTX/PTX: 0

DEFER:

EXEMPT:

TOT EXEMPT:
APPEAL:

[Previous Page](#) [Next Page](#)

[Back To Geo-Data Explorer](#)

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD

Block Lot: 0203 206C, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: 747 CHESTNUT ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:



VACANT LAND

[Next Page](#)

[Back To Geo-Data Explorer](#)

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD



Block Lot: 0203 104, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: LIBERTY ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:

LAND TYP CL	ZONING GB	ACREAGE	FR	RE AV	SQFT PB 8,220 04	RATE S-F 2.50 1.0500 TOPO: DES	UT LC 0.9	RF	TO SH AC EZ 0.95	VALUE 18,449
TOTAL ACRGE:		ROAD: PB-PVD								
RESIDENTIAL										
HGT CON	STYLE	YEAR	GRADE	REP VAL	ALL CARDS 18,449	PY	EF	VALUE		

LAND:																				
DWELL:																				
M.I.:																				
COMM:																				
IND:																				
TOTAL:		18,449																		
MISCELLANEOUS	IMPROVEMENTS																			
TYPE	CONSTR																			
DATE	ESTATE FILE																			
8/2/1//1980																				
TN	JUR	%	FD1	%	FD2	%														
WS	WS	100																		

NTX/PTX: 0
DEFER:
EXEMPT:

TOT EXEMPT:
APPEAL:

[Previous Page](#) [Next Page](#)

[Back To Geo-Data Explorer](#)

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD

Block Lot: 0203 104, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: LIBERTY ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:



VACANT LAND

[Next Page](#)

[Back To Geo-Data Explorer](#)

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD



Block Lot: 0203 102, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: CHESTNUT ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:

LAND TYP CL	ZONING GB	ACREAGE 113	FR 113	RE 97	AV 198	SQFT 16,132	PB 04	RATE S-F 2.50	1.0500	UT LC 0.9	RF	TO 0.95	SH	AC	EZ	VALUE 36,206	
TOTAL ACRGE: ROAD: C&G PB-PVD SWK																	
RESIDENTIAL																	
HGT	CON	STYLE	YEAR	GRADE	REP	VAL	PY	EF	VALUE								

LAND: DWELL: M.I.: COMM: IND: TOTAL: MISCELLANEOUS TYPE DATE 1//2//1981 TN WS	CONSTR ESTATE FILE % FD1 100	STAMPS % FD2	HGT SIZE OTHER BL %	AREA BOOK/PAGE 1323/1700	RATE	YEAR	CND	B-VAL	GRADE	PY	EF	VALUE	NOTE
<div> <div>36,206</div> <div>36,200</div> </div>													

NTX/PTX:
DEFER:
EXEMPT:

TOT EXEMPT:
APPEAL:

[Previous Page](#) [Next Page](#)

[Back To Geo-Data Explorer](#)

FORSYTH COUNTY TAX ASSESSOR / PROPERTY RECORD CARD

Block Lot: 0203 102, Status: C, 1 of 1, Map Number: 630858, Additional Lots:
Name:

Company: REYNOLDS R J INC
Owner Address: PO BOX 2959 Property Address: CHESTNUT ST N
WINSTON-SALEM, NC 27102-2959

C/O:
Other Address:



VACANT LAND

[Next Page](#)

[Back To Geo-Data Explorer](#)

APPENDIX B
Chain of Title Information
And Property Deed

See Book 1756 Page 2221 for Revenue Stamps

\$ 650,000

238

AK1756 P2227
PRESENTED FOR
REGISTRATION
AND RECORDED

'92 SEP 16 P4:05

L.E. SPEAS
REGISTER OF DEEDS
FORSYTH CO. N.C.

1800 [Signature]
Recording Time, Book and Page

Excise Tax _____

Tax Lot No. _____ Parcel Identifier No. _____

Verified by _____ County on the _____ day of _____, 19 _____

by _____

Mail after recording to: Glaze Box

This instrument was prepared by Leslie G. Frye

Brief description for the Index _____

NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 2nd day of September, 19 92, by and between

GRANTOR

GRANTEE

C.W. MYERS TRADING POST, INC.

R.J. REYNOLDS TOBACCO COMPANY,
a New Jersey Corporation

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Forsyth County, North Carolina and more particularly described as follows: Winston Township.

SEE ATTACHED EXHIBIT "A" HERETO AND INCORPORATED HEREIN BY REFERENCE.

The property hereinabove described was acquired by Grantor by instrument recorded in Deed Book 1556, Page 94, Forsyth County Registry.

A map showing the above described property is recorded in Plat Book _____ page. TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

All easements and restrictions of record, if any.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

C.W. MYERS TRADING POST, INC.
(Corporate Name)

By: *[Signature]*
Vice President

Witness: *[Signature]*
Secretary (Corporate Seal)

USE BLACK INK ONLY

SEAL-STAMP

NORTH CAROLINA, _____ County.

I, a Notary Public of the County and State aforesaid, certify that _____ Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this _____ day of _____, 19____.

LESIA A. CARPENTER
NOTARY PUBLIC
MECKLENBURG COUNTY, NC
My Commission Expires August 1, 1993

LESIA A. CARPENTER
NOTARY PUBLIC
MECKLENBURG COUNTY, NC
My Commission Expires August 1, 1993

My commission expires: _____ Notary Public
NORTH CAROLINA, _____ County.

I, a Notary Public of the County and State aforesaid, certify that *Louise Myers Allen* personally came before me this day and acknowledged that *she* is _____ Secretary of *C.W. MYERS TRADING POST, INC.* North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its *Vice* _____ her as its _____ Secretary.

My hand and official stamp or seal, this *16* day of *September*, 19*92*.
My commission expires: *8/1/93* *Lesia A. Carpenter* Notary Public

The foregoing Certificate(s) of *Lesia A. Carpenter N.P. Mecklenburg Co.*

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

L.E. SPEAS, REGISTER OF DEEDS

REGISTER OF DEEDS FOR *FORSYTH* COUNTY

By: *[Signature]* Deputy/Assistant-Register of Deeds

EXHIBIT "A"

BEGINNING at an iron in the west right-of-way line of Patterson Ave., said iron being 399.15 feet north of an iron stake at the northeast corner of Patterson Ave. and Seventh Street, said iron also being the northeast corner of the property conveyed to Home Real Estate Loan and Insurance Company in Deed Book 759, Page 215, recorded in the Forsyth County Registry; running thence from said place of beginning North 85 degrees 16 minutes 07 seconds West 257.35 feet to an iron in the east right-of-way line of Chestnut Street, said iron also being the northwest corner of the aforesaid property conveyed to Home Real Estate Loan and Insurance Company; running thence with the east right-of-way line of Chestnut St. North 02 degrees 31 minutes 18 seconds East 182 feet to an iron in the east right-of-way line of Chestnut Street, said iron also being the southwest corner of the property conveyed to E.W. Hoots and H.F. Hoots in Deed Book 532, Page 118 recorded in the Forsyth County Registry; running thence South 87 degrees 23 minutes 28 seconds East 92.06 feet to an iron, said iron being the southeast corner of the property conveyed to E.W. Hoots and H.F. Hoots in Deed Book 534, Page 155, recorded in the Forsyth County Registry; running thence North 02 degrees 34 minutes 54 seconds East 34.65 feet to an iron, said iron being the southwest corner of the property conveyed to Louise H. Barber in Deed Book 1026, Page 569; running thence North 66 degrees 34 minutes 24 seconds East 102.10 feet to an iron, said iron being the southeast corner of the aforesaid property conveyed to Louise H. Barber and the Southwest corner of the property conveyed to R.P. Smith and wife, Laurine S. Smith, in Deed Book 746, Page 40, Forsyth County Registry; running thence with the Smith line North 66 degrees 58 minutes 57 seconds East 58.48 feet to an iron on Smith's line; running thence South 85 degrees 29 minutes 12 seconds East 36.65 feet to an iron in the west right-of-way line of Patterson Avenue, said iron also being the southeast corner of the aforesaid property conveyed to R.P. Smith and wife, Laurine S. Smith; running thence with the west right-of-way line of Patterson Avenue South 05 degrees 39 minutes 58 seconds West 295.36 feet to the point and place of BEGINNING.

Being the same property as that described as Tract 7 in Deed Book 1545, Page 401.

APPENDIX C
NC DENR Incident File Information



INDEPENDENT TESTING LABORATORIES, INC.
DRAWER P - SALEM STATION
PHONES: 724-1510-724-1519
440 BROOKSTOWN AVENUE
WINSTON-SALEM, NORTH CAROLINA 27108

May 10, 1991

RECEIVED
N.C. Dept. NRC

MAY 14 1991

Winston-Salem
Regional Office

Salvage Building materials

North Carolina Department of Environment,
Health and Natural Resources
8025 North Point Blvd., Suite 100
Winston-Salem, NC 27106

Attn: Mr. Thomas Salley

Gentlemen:

Enclosed are test results from U.S.T.'s at Liberty and Ivey Avenue,
Winston-Salem, N.C.

The tanks were permitted through Roy Joyner Wrecking. He ask me
to forward the test results to your office.

Please notify Joyner or the undersigned as to your requirements
concerning the contamination

Thank you.

Sincerely yours

INDEPENDENT TESTING LABORATORIES, INC.

John Sumner

John Sumner, Manager

JS/efs
Enclosures
CC: Roy Joyner
WS-3907

*COPIES OF
ORIGINALS
RETURNED*

GeoChem, Incorporated

Environmental Laboratories

Geochem
Project#9104-059

1

Site Name Ivey Ave. & Liberty St

LAB ID.	1175	1176
DATE SAMPLED	4/17/91	4/17/91
FIELD ID.	1	4

METHOD

ANALYTE	mg/kg	pql	mg/kg	pql
TPH/kerosene			7,700	50
TPH/gas	8.7	1.0		

parts per million = soil mg/kg water mg/l
parts per billion = ug/kg ug/l
pql = practical quantitation limit due to matrix effects.
bdl = below method detection limit.
bql = below quantitation limit.

C.C. Roy Joyner 8/8.
WS-3907



ENGINEERING CONSULTANTS, INC.

RECEIVED
N.C. Dept. of Environment and Natural Resources

DEC 19 1991

Winston-Salem
Regional Office

P.O. Box 18846 • Zip 27419-8846 • 313 Gallimore Dairy Rd. Greensboro, N.C. 27409 • (919) 668-0093

November 26, 1991

Salvage Building Materials, Inc.
951 North Liberty Street
Winston-Salem, North Carolina 27101

Attention: Mr. Larry Danner

Reference: Phase II Soil and Groundwater Sampling
Salvage Building Materials, Inc.
920 North Liberty Street
Winston-Salem, North Carolina
Trigon Job No. 015-91-122

Dear Mr. Danner:

Trigon Engineering Consultants, Inc. has completed the groundwater monitoring well installation and the soil and groundwater samplings at the referenced site, hereinafter referred to as site, in accordance with Trigon Proposal No. 015-91-194-P. This summary report incorporates the terms and conditions of that proposal herein by reference. This report is issued as a summary of soil and groundwater samplings, laboratory results, and our recommendations associated with the site.

BACKGROUND

The site was formerly occupied by a gas station that reportedly maintained two gasoline USTs, one kerosene UST, and one waste oil UST (Refer to Figure 015-91-122-1). Prior to Trigon's site involvement, the two gasoline USTs and one kerosene UST were removed, some soil suspected of contamination was stockpiled, and the excavations backfilled. The waste oil UST was left in place for consideration at a later date. Contamination monitoring of the UST removal, by a company other than Trigon, was reportedly incomplete and Trigon was contracted to augment the environmental testing previously conducted.

FIELD INVESTIGATION

On October 8, 1991, Trigon mobilized a MOBILE B-61 drill rig to the site for the augering of four soil test borings and the installation of one groundwater monitoring well (Figure 1). The drill rig and tools were decontaminated prior to and after drilling activities at each sample location with a high pressure steam cleaner. During soil boring

of the equipment blank is to monitor field sampling practices and laboratory/analytical procedures.

The OVA was used to screen the ambient air at the top of the open monitoring well casing and the groundwater sample during sampling. There was no detection of organic vapors concentrations present (Refer to Appendix B).

The soil samples, water samples and equipment blank were placed in laboratory prepared containers and packaged in a cooler with ice packs (4°C) for shipment to Industrial and Environmental Analysts, Inc. (IEA) for analysis. A Chain of Custody form was utilized at the site and remained enforce throughout the analytical process (Refer to Appendix F).








LABORATORY ANALYSIS

The groundwater samples collected were analyzed for volatile organic compounds by EPA Method 624 purgeables and semi-volatile organic compounds by EPA Method 625 base/neutral extractables. The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) by gas chromatography (GC) via EPA Methods SW-846 3550 for No. 2 fuel oil, kerosene and varsol and SW-846 5030 for gasoline. Laboratory quality control analyses were conducted on both groundwater and soil samples. A field blank was analyzed by EPA Method 624 and indicated no evidence of contamination by field sampling.

The analysis did reveal two volatile organic chemical substances in the groundwater above North Carolina Water Quality Standards (NCWQS). These substances were Chloroform (Trichloromethane) at a concentration of 13 parts per billion (ppb) and Trichloroethene (Trichloroethylene) at a concentration of 44 ppb (Appendices E and G). The NCWQS applicable to groundwater (Class GA Standards) indicates that the maximum allowable concentration of Chloroform to be 0.19 ppb and for Trichloroethene to be 2.8 ppb. There were no detectable quantities of the semi-volatile organic compounds targeted for laboratory analysis found in the groundwater samples (Refer to Appendix E).

The soil samples were analyzed for Total Petroleum Hydrocarbons by Gas Chromatography (TPH-GC). This analysis did not reveal petroleum substances above the quantitation limits for borings B-1, B-2, and B-3. However, boring B-4 sample did contain a petroleum hydrocarbon blend with a distillation range similar to No. 2 fuel oil (Appendix D). The concentration reported was 12 milligrams per kilogram (mg/kg) with the analytical quantitation limit of 2 mg/kg. The sample did not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline (Refer to Appendix E).

LEGEND

-  Monitoring Well No. 1
-  Soil Test Borings
-  Removed Kerosene UST
-  Removed Gasoline USTs
-  Existing Waste UST
-  Existing UST Associated Soil Stockpile
-  Groundwater Well and Test Boring Soil Stockpile

10th Street

MW#1



Western Property Line

Abandoned
Gas Station

B-4 B-3

B-1 B-2

Ivy
Avenue



NORTH

Liberty
Street

TRIGON ENGINEERING CONSULTANTS, INC.
GREENSBORO, NORTH CAROLINA

SCALE N/A

APPROVED BY

DRAWN BY N/A

DATE 11/14/91

KR

920 North Liberty Street
Winston-Salem, North Carolina

Salvage Building Materials, Inc.
Site Plan

DRAWING NUMBER
015-91-122-1